



## **University of Huddersfield Repository**

Tzani-Pepelasi, Kalliopi

Risk and Preventive Factors Related to School-Bullying and Cyber-Bullying: Comparing the effects of Socio-demographic, Family Environment, Friend Environment, Personality and Behavioural Factors Between School-Bullying and Cyber- Bullying

### **Original Citation**

Tzani-Pepelasi, Kalliopi (2019) Risk and Preventive Factors Related to School-Bullying and Cyber-Bullying: Comparing the effects of Socio-demographic, Family Environment, Friend Environment, Personality and Behavioural Factors Between School-Bullying and Cyber- Bullying. Doctoral thesis, University of Huddersfield.

This version is available at <http://eprints.hud.ac.uk/id/eprint/35065/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: [E.mailbox@hud.ac.uk](mailto:E.mailbox@hud.ac.uk).

<http://eprints.hud.ac.uk/>

**RISK AND PREVENTIVE FACTORS RELATED TO SCHOOL-BULLYING AND CYBER-BULLYING: COMPARING THE EFFECTS OF SOCIO-DEMOGRAPHIC, FAMILY ENVIRONMENT, FRIEND ENVIRONMENT, PERSONALITY AND BEHAVIOURAL FACTORS, BETWEEN SCHOOL-BULLYING AND CYBER-BULLYING**

**KALLIOPI TZANI-PEPELASI**

**A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of Doctor of Philosophy**

**VOLUME 1 OF 2**

**July 2019**

## **Copyright Statement**

The author of this thesis (including any appendices and/ or schedules to this thesis) owns any copyright in it (the “Copyright”) and s/he has given The University of Huddersfield the right to use such Copyright for any administrative, promotional, educational and/or teaching purposes.

Copies of this thesis, either in full or in extracts, may be made only in accordance with the regulations of the University Library. Details of these regulations may be obtained from the Librarian. Details of these regulations may be obtained from the Librarian. This page must form part of any such copies made.

The ownership of any patents, designs, trademarks and any and all other intellectual property rights except for the Copyright (the “Intellectual Property Rights”) and any reproductions of copyright works, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property Rights and Reproductions cannot and must not be made available for use without permission of the owner(s) of the relevant Intellectual Property Rights and/or Reproductions.

## Acknowledgments

This three-year project and resulted thesis as well as my future efforts are dedicated to my wonderful son Adrian who is the reason of my existence and for whom I aspire to contribute with this project into building a safer school environment as well as more secure cyberspace use. Thank you for placing a smile on my face every day and for giving me the strength to face every endeavour. I breathe and live only for you.

I want to thank my family for putting up with my mental absence these three years and for supporting me all the way through. I also want to thank my beloved father who might not be here with me today to see me through my completion but he has guided me in every step and has set the standards high for me to follow and achieve my dreams. I wish you were here to join my progression.

I would also like to give special thanks to my supervisor Dr Maria Ioannou, and Dr John Synnott.

Maria, you taught me, guided me, mentored me, made me a better person, transformed me into a proper professional and showed me the way to ethical research and academia. Thank you for always being there for me, and especially during the difficult times, thank you for all your support, and for putting up with my ignorance, but above all thank you for giving me the opportunity to be supervised by you, an ethical, honest, direct, professional and compassionate supervisor.

John thank you for teaching me the virtue of patience, how to overcome my own limits, how to accept and appreciate difficulties. Above all, thank you for challenging me to come out from struggles stronger and more determined for progression and success.

I would also like to thank the University of Huddersfield for hosting me the past four years and for the opportunities that arose during my studentship, as well as its hard working employees that have silently assisted me from the background to materialise my idea and produce my thesis.

## Abstract

**Background:** Research in the field of school-bullying has been expanding for at least three decades while research in cyber-bullying is still evolving. There has been an enormous amount of empirical works and projects throughout the years, all aiming to understand how bullying functions, the motivation behind such behaviour, the related factors, the consequences, and of course to create efficient prevention and intervention models. However, in spite of the continuous efforts to decrease the rates for both forms, previous research has shown that school-bullying remains stable whereas cyber-bullying is on the rise and evolving.

**Aim:** This three-year project aimed to explore highly studied as well as neglected risk and preventive factors in relation to SB and CB; examine relationships, differences and predictive effects, whilst providing a comparison of the factors' effect on SB and CB.

**Methodology:** For this project 408 participants were recruited to complete the online survey in Google Forms. The questionnaire aimed to measure school-bullying and cyber-bullying both from the perspective of the victim and the perpetrator, empathy, self-esteem, aggression, anger, impulsivity, self control, guilt, morality, copying strategy/minimisation, factors related to family, and friends. To achieve this 11 previously validated scales were employed and a series of questions were constructed in order to measure other related aspects.

**Findings:** Results showed that there are complicated relationships, differences, and predictive effects between the factors and the two forms of bullying, with some factors relating to both forms of bullying, while there appears to be an overlap between the two forms. To collectively present the results, a four level model was

developed and the school-bullying/cyber-bullying prevention/intervention model emerged.

**Conclusion:** Bullying is a complicated phenomenon regardless of the expressed form. There are numerous gaps in research that require further examination and several limitations that future research should address. In spite of the current project's limitations that are addressed in detail, this project managed to provide a collective comparative picture of risk factors for both forms of bullying and has developed a detailed anti-bullying model that could potentially tackle both school-bullying and cyber-bullying.

## **List of Contents**

Copyright Statement	2
Acknowledgments	3
Abstract	5
List of Contents	7
List of Tables	13
List of Figures	17
Executive Summary	20
Part 1 - Understanding School-bullying and Cyber-bullying	21
Chapter 1 - Understanding the Two Main Forms of Bullying	21
1.1. General Introduction to School Bullying and Cyber-Bullying	21
1.2. Introduction to School Bullying	22
1.2.1. What is School Bullying?	23
1.2.2. Types of School Bullying	24
1.3. Introduction to Cyber-Bullying	26
1.3.1. What is Cyber-Bullying?	27
1.3.2. Types of Cyber-Bullying	29
1.4. Similarities and Differences Between School Bullying and Cyber-Bullying	30
1.5. Prevalence of School Bullying and Cyber-Bullying	31
1.6. Consequences of Bullying	35
1.7. Consequences of Bullying	35
1.7. Risk and Preventive Factors Related to SB and CB	40
1.8. The Present Study's Rationale	43
1.9. Aims	45
1.10. Methodology	47
1.10.1. Sample	47
1.10.2. Material	48
1.10.3. Procedure	58
1.10.4. Ethics	63

1.10.5. Plan of Analysis	63
1.11. Conclusion	64
Part 2: Focusing on School-Bullying	65
Chapter 2 – The School Bullying Victim	65
2.1. Victims of School Bullying	65
2.2. Victim Characteristics	66
2.3. Reasons of Victimization	67
2.4. Frequency of Victimization	69
2.5. Types of Victimization	69
2.6. Parents' Awareness of School Bullying Victimization	70
2.7. Bullying at Home	72
2.8. What Stops School Bullying	73
2.9. School Bullying Victims Protecting Other Victims	75
2.10. Reasons that Victims Protect Other Victims	75
2.11. Hypotheses Chapter 2	76
2.12. Chapter 2 Results	77
2.13. Chapter 2 Discussion	80
2.14. Chapter 2 Conclusion	85
Chapter 3 – The School Bullying Perpetrator	86
3.1. SB Bullies	86
3.2. School Bullying Perpetrators' Characteristics	86
3.3. School Bullying Perpetrators' Motivation for Victimising Others	88
3.4. Frequency of SB Perpetration	89
3.5. Ways of School Bullying Perpetration	89
3.6. Parent Awareness and School Bullying Perpetration	90
3.7. Reasons that School Bullying Perpetrators Stop Bullying	91
3.8. School Bullying Perpetrators Protecting Other Bullies' Victims	92
3.9. Reasons That School Bullying Perpetrators Might Protect Other Bullies' Victim	93
3.10. Chapter 3 Hypotheses	94
3.11. Chapter 3 Results	94

3.12. Chapter 3 Discussion	97
3.13. Chapter 3 Conclusion	101
Chapter 4 – Switching Roles in School Bullying	103
4.1. Literature in Role Switching	103
4.2. Chapter 4 Hypotheses	104
4.3. Chapter 4 Results	104
4.4. Chapter 4 Discussion	105
4.5. Chapter 4 Conclusion	106
Chapter 5 – Background Factors and School Bullying	107
5.1. General Introduction	107
5.2. Age and School Bullying	107
5.3. Gender and School Bullying	108
5.4. Race/ethnicity and School Bullying	109
5.5. Religion and School Bullying	110
5.6. Sexual orientation and School Bullying	111
5.7. Disabilities and School Bullying	112
5.8. Mental health and School Bullying	112
5.9. Physical health and School Bullying	113
5.10. Chapter 5 Hypotheses	114
5.11. Chapter 5 Results	115
5.12. Chapter 5 Discussion	122
5.13. Chapter 5 Conclusion	125
Chapter 6 – Factors Related to Family/friend Environment and School Bullying	126
6.1. Parent Connectedness, Communication and School Bullying	126
6.2. Type of Parenting and School Bullying	127
6.3. Sibling Connectedness, Communication and School Bullying	127
6.4. Sibling Teasing and School Bullying	128
6.5. Friendship Quality, Connectedness, Communication and School Bullying	128
6.7. Chapter 6 Hypotheses	129
6.8. Chapter 6 Results	129

6.9. Chapter 6 Discussion	138
6.9. Chapter 6 Conclusion	142
Chapter 7 – Personality and Behavioural Factors and School Bullying	144
7.1. Empathy and School Bullying	144
7.2. Self-esteem and School Bullying	145
7.3. Aggression and School Bullying	146
7.4. Anger and School Bullying	147
7.5. Impulsivity and School Bullying	148
7.6. Self control and School Bullying	149
7.7. Guilt and School Bullying	149
7.8. Morality and School Bullying	150
7.9. Coping Skills/minimisation Strategy and School Bullying	151
7.10. Chapter 7 Hypotheses	153
7.11. Chapter 7 Results	153
7.12. Chapter 7 Discussion	165
7.13. Chapter 7 Conclusion	174
Chapter 8 – General Conclusion of Part 2	176
Part 3 Focusing on Cyber-Bullying	191
Chapter 9 – Social Media, the Internet, and Cyber-Bullying	191
9.1. How Social Media and the Internet Differentiate Cyber-Bullying from School Bullying	193
9.2. Access to the Internet and Cyber-Bullying	195
9.3. Frequency of Internet Access and Cyber-Bullying	196
9.4. Online Violence and Cyber-Bullying	196
9.5. Parental Monitoring of Online Access	197
9.6. Onset of Internet Access, Social Media Use and Cyber-Bullying	199
9.7. Social Media Types and Cyber-Bullying	200
9.8. Reasons of Social Media Use and Cyber-Bullying	201
9.9. Chapter 9 Hypotheses	202
9.10. Chapter 9 Results	202
9.11. Chapter 9 Discussion	205

9.12. Chapter 9 Conclusion	209
Chapter 10 Cyber-Bullying Victim	210
10.1. Cyber-victimisation	210
10.2. Frequency of Cyber-Bullying Victimisation	211
10.3. Cyber-Bullying Victim Characteristics	213
10.4. Most Prevalent Platforms for Cyber-Bullying Incidents	214
10.5. Ways of Cyber-Bullying	214
10.6. Reasons of Cyber-Bullying Victimisation	215
10.7. Cyber-Bullying Victimisation and Interaction in Other Settings	216
10.8. What Stops Cyber-Bullying Victimisation	217
10.9. Chapter 10 Hypotheses	219
10.10. Chapter 10 Results	219
10.11. Chapter 10 Discussion	224
10.12. Chapter 10 Conclusion	229
Chapter 11 – Cyber-Bullying Perpetration	231
11.1. Cyber-Bullying Perpetrator	231
11.2. Frequency of Cyber-Bullying Perpetration	232
11.3. Cyber-Bullying Perpetrators’ Characteristics	233
11.4. Most Prevalent Social media Platforms and Cyber-Bullying Perpetration	235
11.5. Cyber-Bullying Perpetration Means	235
11.6. Reasons of Cyber-Bullying Perpetration	236
11.7. Cyber-Bullying Perpetration and Perpetration in Other Settings	237
11.8. What Stops Cyber-Bullying Perpetration	238
11.9. Chapter 11 Hypotheses	239
11.10. Chapter 11 Results	239
11.11. Chapter 11 Discussion	242
11.12. Chapter 11 Conclusion	246
Chapter 12 – Changing Roles in Cyber-Bullying	247
12.1. Literature in Role Switching and Cyber-Bullying	247
12.3. Chapter 12 Results	263

12.2. Chapter 12 Hypotheses	248
12.3. Chapter 12 Results	248
12.4. Chapter 12 Discussion	251
12.5. Chapter 12 Conclusion	253
Chapter 13 – Background Factors and Cyber-Bullying	254
13.1. General Introduction	254
13.2. Age and Cyber-Bullying	254
13.3. Gender and Cyber-Bullying	255
13.4. Race/ethnicity and Cyber-Bullying	255
13.5. Religion and Cyber-Bullying	256
13.6. Sexual Orientation and Cyber-Bullying	257
13.7. Disabilities and Cyber-Bullying	257
13.8. Mental Health and Cyber-Bullying	258
13.9. Physical Health and Cyber-Bullying	258
13.10. Chapter 13 Hypotheses	259
13.11. Chapter 13 Results	259
13.12. Chapter 13 Discussion	263
13.13. Chapter 13 Conclusion	267
Chapter 14 – Factors Related to Family/friend Environment and Cyber-Bullying	269
14.1. Parent Connectedness, Communication and Cyber-Bullying	269
14.2. Types of Parenting and Cyber-Bullying	270
14.3. Sibling Connectedness, Communication and Cyber-Bullying	271
14.4. Sibling Teasing and Cyber-Bullying	271
14.5. Friendship Quality, Connectedness, Communication and Cyber-Bullying	271
14.6. Chapter 14 Hypotheses	272
14.7. Chapter 14 Results	272
14.8. Chapter 14 Discussion	276
14.9. Chapter 14 Conclusion	279
Chapter 15 – Personality, Behavioural Factors and Cyber-Bullying	281
15.1. Empathy and Cyber-Bullying	281

15.2. Self-esteem and Cyber-Bullying	282
15.3. Aggression and Cyber-Bullying	282
15.4. Anger and Cyber-Bullying	283
15.5. Impulsivity and Cyber-Bullying	284
15.6. Self control and Cyber-Bullying	284
15.7. Guilt and Cyber-Bullying	285
15.8. Morality and Cyber-Bullying	285
15.9. Coping skills/minimisation strategy and Cyber-Bullying	286
15.10. Chapter 15 Hypotheses	287
15.11. Chapter 15 Results	287
15.12. Chapter 15 Discussion	296
15.13. Chapter 15 Conclusion	304
Chapter 16 – General Conclusion of Part 3	306
Part 4 Anti-bullying Education	317
Chapter 17 Bullying Intervention	317
17.1. Introduction	317
17.2. Intervention for Bullying	317
17.3. Anti-bullying education and training at home	320
17.4. Anti-bullying Education and Training at School	321
17.5. Onset of Anti-bullying Education and Effectiveness	322
17.6. Support at School	322
17.7. Restorative Justice at Schools	323
17.8. Resilience and Bullying	324
17.9. Are Schools Prepared to Cope With Bullying	325
17.10. Chapter 17 Results	325
17.11. Chapter 17 Discussion	327
17.12. Chapter 17 Conclusion	331
Part 5 Developing the Anti-Bullying Model	333
Chapter 18 – Comparing School Bullying to Cyber-Bullying	333
18.1. Comparing Frequencies	333

18.2. Comparing Associations and Differences	338
18.3. Comparing Predictions	342
18.4. Anti-bullying Model Proposition	344
18.5. Chapter 18 Conclusion	351
Chapter 19. Limitations and Directions for Future Research	353
19.1. Limitations and Direction for Future Research	353
19.2. Implications	361
Chapter 20. Thesis General Conclusion	366
References	371
Appendix A	467
Appendix B	477
Appendix C	563

## List of Tables

Table 1.10.1. List of the most recent studies relevant to bullying.....	467
Table 1.10.2. Measures that have been used to study bullying and the related consequences .....	474
Table 1.9.1.1. Summary Statistics for Participants' Age .....	477
Table 1.9.1.2. Frequencies for Nominal Background Variables .....	477
Table 1.9.1.3. Frequencies for Mental and Physical Health .....	480
Table 2.12.1. Frequencies of reported SB victimisation means .....	77
Table 2.12.2. Who SB victimised you the most.....	77
Table 2.12.3. Perceived reasons of SB victimisation. ....	78
Table 2.12.4. Who victimised you at home.....	78
Table 2.12.5. How did the SB victimisation stop.....	79
Table 2.12.6. Why SB victims attempted to protect other SB victims from being victimised. ....	79
Table 3.11.1. Most prevalent SB perpetration means.....	94
Table 3.11.2. Who did SB perpetrators victimised the most.....	95
Table 3.11.3. Perpetrators' motivation for victimising others.....	95
Table 3.11.4. Why did perpetrators stopped victimising others.....	96
Table 3.11.5. Why did perpetrators attempted to protect someone else's victims.....	96
Table 5.11.1. Variance Inflation Factors for AGE, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.....	480
Table 5.11.2. Logistic Regression Results with AGE, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health Predicting SB victimisation occurrence.....	116
Table 5.11.3. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health health.....	482
Table 5.11.4. Results for Linear Regression with Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health Predicting Victimisation Scale.....	117
Table 5.11.5. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation,	

Disabilities, Mental health, and Physical health.....	484
Table 5.11.6. Multinomial Logistic Regression showing SB perpetration Predicted by AGE, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.....	119
Table 5.11.7. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.....	484
Table 5.11.8. Results for Linear Regression with Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health Predicting SB Perpetration intensity.....	120
Table 6.7.1. Parents' intervention means for sibling teasing.....	130
Table 6.7.2. Frequencies for Nominal Variables Related to Parents.....	486
Table 6.7.3. Frequencies for Nominal Variables Related to Siblings.....	487
Table 6.7.4. Observed and Expected Frequencies.....	489
Table 6.7.5. Observed and Expected Frequencies.....	489
Table 6.7.6. Observed and Expected Frequencies.....	489
Table 6.7.7. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Friendly relationship with parents.....	490
Table 6.7.8. Pairwise Comparisons for the Mean Ranks of SB Victimisation Intensity by Levels of Friendly relationship with parents.....	490
Table 6.7.9. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Parenting style.....	491
Table 6.7.10. Pairwise Comparisons for the Mean Ranks of SB Victimisation Intensity by Levels of Parenting style.....	491
Table 6.7.11. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Parental support.....	492
Table 6.6.12. Pairwise Comparisons for the Mean Ranks of SB Victimisation Intensity by Levels of Parental support.....	492
Table 6.7.13. Kruskal-Wallis Rank Sum Test for SB Perpetration intensity by Friendly relationship with parents.....	493
Table 6.7.14. Observed and Expected Frequencies.....	493
Table 6.7.15. Observed and Expected Frequencies.....	494
Table 6.7.16. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Sibling support.....	494
Table 6.7.17. Pairwise Comparisons for the Mean Ranks of SB Victimisation Intensity by Levels of Sibling support.....	495
Table 6.7.18. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Sibling teasing.....	495
Table 6.7.19. Pairwise Comparisons for the Mean Ranks of SB Victimisation Intensity by Levels of Sibling teasing.....	496
Table 6.7.20. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Parental reaction to sibling teasing.....	496
Table 6.7.21. Pairwise Comparisons for the Mean Ranks of SB Victimisation Intensity by Levels of Parental reaction to sibling teasing.....	497
Table 6.7.22. Observed and Expected Frequencies.....	498
Table 6.7.23. Variance Inflation Factors for Friendly relationship with parents, Parental support, and Sibling teasing.....	498
Table 6.7.24. Logistic Regression Results with Friendly relationship with parents, Parental support, and Sibling teasing Predicting SB Victimisation occurrence.....	134
Table 6.7.25. Variance Inflation Factors for Friendly relationship with parents, Parenting style, Parental support, Sibling support, Sibling teasing, and Parental Reaction to sibling teasing.....	499
Table 6.7.26. Results for Linear Regression with Friendly relationship with Parents, Parenting style, Parental support, Sibling support, Sibling teasing, and Parental reaction to sibling teasing predicting SB victimisation intensity.....	136
Table 6.7.27. Variance Inflation Factors for Friendly relationship with parents, Siblings, and Friends awareness.....	500
Table 6.7.28. Multinomial Logistic Regression Table with SB Perpetration Occurrence predicted by Friendly relationship with parents, Siblings, and Friend awareness.....	138
Table 7.11.1. Summary Descriptive Statistics.....	501

Table 7.11.1.1. Pearson Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Victimisation intensity.....	155
Table 7.11.1.2. Spearman Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Victimisation intensity.....	158
Table 7.11.1.3. Pearson Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Perpetration intensity.....	158
Table 7.11.1.4. Spearman Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Perpetration intensity....	156
Table 7.11.3.1. Pearson Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and SB Victimisation intensity.....	507
Table 7.11.3.2. Pearson Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and SB Perpetration intensity.....	508
Table 7.11.3.3. Spearman Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and SB Perpetration intensity.....	509
Table 7.11.7.1. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW, and SB Victimisation intensity .....	159
Table 7.11.7.2. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW and SB Perpetration intensity.....	160
Table 7.11.8.1. Pearson Correlation Matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity.....	515
Table 7.11.8.2. Pearson Correlation Matrix among, Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity and SB Perpetration intensity.....	516
Table 7.11.9.1. Variance Inflation Factors for Self-esteem, Self-reported Impulsivity, Guilt, and Minimisation.....	512
Table 7.11.9.2. Results for Linear Regression with Self-esteem, Self reported impulsivity, Guilt, and Minimisation predicting SB victimisation intensity.....	171
Table 7.11.9.3. Variance Inflation Factors for Self-reported impulsivity, Self-control, Guilt, Empathy mean score, Anger, Aggression, and Morality.....	520
Table 7.11.9.4. Results for Linear Regression with Self-reported impulsivity, Self-control, Guilt, Empathy mean score, Anger, Aggression, and Morality mean Score predicting SB Perpetration intensity.....	521
Table 7.11.9.5. Variance Inflation Factors for GNSE, GSW, Suffering, Emotional Contagion, Hostility, Purity, and Progressivism.....	522
Table 7.11.9.6. Results for Linear Regression with GNSE, GSW, Suffering, Emotional Contagion, Hostility, Purity, and Progressivism predicting SB victimisation intensity.....	173
Table 7.11.9.7. Variance Inflation Factors for GNBE, GR, GNSE, Suffering, Positive Sharing, Emotional Attention, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, Harm, and In-group.....	524
Table 7.11.9.8. Results for Linear Regression with GNBE, GR, GNSE, Suffering, Positive Sharing, Emotional Attention, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, Harm, and In-group predicting SB Perpetration intensity.....	525
Table 9.10.1. Types of Online Violence.....	212
Table 9.10.2. Social Media and Most Used Platforms.....	213
Table 9.10.3. Purpose of Social Media Use.....	214
Table 9.10.4. Observed and Expected Frequencies.....	528
Table 10.5.1. Most prevalent CB victimisation means according to Nuccitelli (2012).....	226
Table 10.9.1. Frequency Table for Nominal Variables.....	528
Table 10.9.2. Frequency Table for Nominal Variables.....	529
Table 10.9.3. Who CB victimised you the most.....	231
Table 10.9.4. Platforms where CB victimisation occurred.....	232
Table 10.9.5. How were you CB victimised.....	233

Table 10.9.6. Why were you CB victimised.....	234
Table 10.9.7. How did CB victimisation stop.....	235
Table 10.9.8. Variance Inflation Factors for CB Victimisation Other Means of Bullying and CB Victimisation Social Media CB Perpetration Role.....	532
Table 10.9.9. Results for Linear Regression with CB victimisation in other settings by the same perpetrator and CB victims' perception on social media role predicting CB victimisation intensity.....	237
Table 10.9.10. Variance Inflation Factors for Time Spent Online, Online Violence Exposure, Parental Monitoring Of Online Time Limit Use, Parents Set Rules For Internet Site Restriction, Internet Site Restriction Follow Rules, and Social Media Use Onset.....	534
Table 10.9.11. Results for Linear Regression with time spent online, online Violence exposure, parental monitoring of time spent online, parents set rules for Internet site restriction, whether rules are followed, and onset of social media use predicting CB victimisation intensity.....	238
Table 11.10.1. Whom did the CB perpetrators victimise.....	253
Table 11.10.2. In which platform did you CB victimised.....	253
Table 11.10.3. Ways that the CB perpetrators used to victimised others.....	254
Table 11.10.4. Frequency Table for Nominal Variables.....	535
Table 11.10.5. Reasons of CB perpetration.....	255
Table 11.10.6. Why did you stop CB victimising others.....	256
Table 12.3.1. Frequency Table for Nominal Variables.....	536
Table 12.3.2. Observed and Expected Frequencies.....	536
Table 12.3.3. Multinomial Logistic Regression table with CB perpetration Occurrence predicted by CB victimisation occurrence.....	266
Table 13.11.1. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.....	537
Table 13.11.2. Multinomial Logistic Regression Table with CB victimisation Occurrence predicted by Age, Gender, Ethnicity, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.....	277
Table 13.11.3. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.....	538
Table 13.11.4. Results for Linear Regression with Age, Gender, Ethnicity, Religion, Sexual orientation, Disabilities, Mental health, and Physical health Predicting CB victimisation intensity.....	279
Table 14.7.1. Observed and Expected Frequencies.....	539
Table 14.7.2a. Frequency Table for Nominal Variables.....	539
Table 14.7.2b. Observed and Expected Frequencies.....	540
Table 14.7.3. Observed and Expected Frequencies.....	540
Table 14.7.4. Observed and Expected Frequencies.....	540
Table 14.7.5. Observed and Expected Frequencies.....	541
Table 14.7.6. Kruskal-Wallis Rank Sum Test for CB Victimisation intensity by Sibling teasing.....	541
Table 14.7.7. Pairwise Comparisons for the Mean Ranks of CB Victimisation Intensity by Levels of Sibling teasing.....	542
Table 14.7.8. Kruskal-Wallis Rank Sum Test for CB Perpetration intensity by Sibling relationship.....	542
Table 14.7.9. Pairwise Comparisons for the Mean Ranks of CB Perpetration Intensity by Levels of Sibling relationship.....	543
Table 14.7.10. Variance Inflation Factors for Sibling teasing and Parents know friends.....	543
Table 14.7.11. Multinomial Logistic Regression Table with CB victimisation Occurrence predicted by Sibling teasing and Parents know friends.....	294
Table 14.7.12. Variance Inflation Factors for Sibling relationship, Parental Reaction to sibling teasing, Friends awareness, and Friends' support.....	543
Table 15.11.1. Pearson Correlation Matrix among Self-esteem, Self-reported impulsivity, Self-control, Minimisation, and CB Victimisation intensity.....	544
Table 15.11.2. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Victimisation intensity.....	545
Table 15.11.3. Pearson Correlation Matrix among Empathy total score, Suffering, Positive Sharing,	

Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and CB Victimisation intensity.....	546
Table 15.11.4. Spearman Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and CB Victimisation Intensity.....	547
Table 15.11.5. Pearson Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Victimisation intensity.....	548
Table 15.11.6. Spearman Correlation Matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality, and CB Victimisation intensity.....	549
Table 15.11.7. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Perpetration intensity.....	550
Table 15.11.8. Spearman Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Perpetration intensity.....	551
Table 15.11.9. Variance Inflation Factors for Self-esteem, Self-reported Impulsivity, Self-control, Minimisation, Empathy mean score, and Aggression.....	552
Table 15.11.10. Results for Linear Regression with Self-esteem, Self reported impulsivity, Self-control, Minimisation, General Empathy Score, and Aggression Total Score predicting CB victimisation intensity.....	310
Table 15.11.11. Variance Inflation Factors for GNBE, GSW, Suffering, Responsive Crying, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, and Progressivism.....	554
Table 15.11.12. Results for Linear Regression with GNBE, GSW, Suffering, Responsive Crying, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, and Progressivism predicting CB victimisation intensity.....	312
Table 15.11.13. Variance Inflation Factors for Guilt and Aggression.....	556
Table 15.11.14. Results for Linear Regression with Guilt and Aggression Total Score predicting CB perpetration intensity.....	313
Table 17.13.1. Frequency Table for Nominal Variables on Anti-bullying Education.....	557
Table 17.13.2. Frequency Table for Nominal Variables on School Response to Bullying.....	559
Table 17.13.3. Victims' perceptions on the results of expressing their feelings to perpetrators.....	344
Table 17.13.4. Perpetrators' perception on the results of victims expressing their Feelings to the first.....	345
Table 18.1. Summary of Findings and Comparison Between SB and CB (Descriptive, Frequencies and Percentages).....	560
Table 18.2.1. Observed and Expected Frequencies.....	567
Table 18.2.2. Observed and Expected Frequencies.....	567
Table 18.2.3. Observed and Expected Frequencies.....	567
Table 18.3.1. Significant correlations and differences of SB victimisation occurrence (SBVO), SB perpetration occurrence (SBPO), SB victimisation Intensity (SBVI), SB perpetration intensity (SBPI), CB victimisation occurrence (CBVO), CB perpetration occurrence (CBPO), CB victimisation intensity (CBVI), and CB perpetration intensity (CBPI), with the independent variables.....	568

## List of Figures

Figure 5.11.1. Q-Q scatterplot testing normality.....	482
Figure 5.11.2. Residuals scatterplot testing homoscedasticity.....	482
Figure 5.11.3. Studentised residuals plot for outlier detection.....	483
Figure 5.11.4. Q-Q scatterplot testing normality.....	484
Figure 5.11.5. Residuals scatterplot testing homoscedasticity.....	485
Figure 5.11.6. Studentised residuals plot for outlier detection.....	486
Figure 6.7.1. Ranked Values of SB Victimisation intensity by the levels of Friendly relationship with parents.....	491

Figure 6.7.2. Ranked Values of SB Victimisation intensity by the levels of Parenting style.....	492
Figure 6.7.3. Ranked Values of SB Victimisation intensity by the levels of Parental support.....	493
Figure 6.7.4. Ranked Values of SB Perpetration intensity by the levels of Friendly relationship with parents.....	494
Figure 6.7.5. Ranked Values of SB Victimisation intensity by the levels of Sibling support.....	495
Figure 6.7.6. Ranked Values of SB Victimisation intensity by the levels of Sibling teasing.....	496
Figure 6.7.7. Ranked Values of SB Victimisation intensity by the levels of Parental reaction to sibling teasing.....	497
Figure 6.7.8. Q-Q scatterplot testing normality.....	499
Figure 6.7.9. Residuals scatterplot testing homoscedasticity.....	500
Figure 6.7.10. Studentised residuals plot for outlier detection.....	501
Figure 7.11.1.1. Scatterplot between Empathy Score and SB Victimisation Intensity.....	503
Figure 7.11.1.2. Scatterplot matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Victimisation intensity.....	504
Figure 7.11.1.3. Scatterplot between Empathy mean score and SB Perpetration intensity.....	505
Figure 7.11.2.1. Scatterplot between Self-esteem and SB Victimisation intensity....	506
Figure 7.11.3.1. Scatterplot between Aggression and SB Victimisation intensity... <td>507</td>	507
Figure 7.11.3.2. Scatterplot between Aggression and SB Perpetration intensity.... <td>508</td>	508
Figure 7.11.3.3. Scatterplot matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression and SB Perpetration intensity.....	509
Figure 7.11.5.1. Scatterplot between Self-reported impulsivity and SB Victimisation intensity.....	510
Figure 7.11.5.2. Scatterplot between Self-reported impulsivity and SB Perpetration intensity.....	510
Figure 7.11.6.1. Scatterplot between Self-control and SB Perpetration intensity....	511
Figure 7.11.7.1. Scatterplot between Guilt and SB Victimisation intensity.....	511
Figure 7.11.7.2. Scatterplot between Guilt and SB Perpetration intensity.....	512
Figure 7.11.7.3. Scatterplot matrix among GNBE, GR, GNSE, GSW and SB Victimisation intensity.....	512
Figure 7.11.7.4. Scatterplot matrix among GNBE, GR, GNSE, GSW and SB Perpetration intensity.....	513
Figure 7.11.8.1. Scatterplot between Morality and SB Perpetration intensity.....	514
Figure 7.11.8.2. Scatterplot matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity.....	514
Figure 7.11.8.3. Scatterplot matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity and SB Perpetration intensity.....	515
Figure 7.11.9.1. Scatterplot between Minimisation and SB Victimisation Intensity.....	516
Figure 7.11.9.2. Q-Q scatterplot testing normality.....	517
Figure 7.11.9.3. Residuals scatterplot testing homoscedasticity.....	517
Figure 7.11.9.4. Studentised residuals plot for outlier detection.....	518
Figure 7.11.9.5. Q-Q scatterplot testing normality.....	519
Figure 7.11.9.6. Residuals scatterplot testing homoscedasticity.....	519
Figure 7.11.9.7. Studentised residuals plot for outlier detection.....	520
Figure 7.11.9.8. Q-Q scatterplot testing normality.....	521
Figure 7.11.9.9. Residuals scatterplot testing homoscedasticity.....	522
Figure 7.11.9.10. Studentised residuals plot for outlier detection.....	523
Figure 7.11.9.11. Q-Q scatterplot testing normality.....	523
Figure 7.11.9.12. Residuals scatterplot testing homoscedasticity.....	524
Figure 7.11.9.13. Studentised residuals plot for outlier detection.....	525
Figure 9.10.1. Hours spent online daily.....	526
Figure 9.10.2. Onset of social media use.....	527

Figure 9.10.3. Scatterplot matrix among time spent online, onset of social Media use and CB victimisation.....	527
Figure 10.9.4. Q-Q scatterplot testing normality.....	531
Figure 10.9.5. Residuals scatterplot testing homoscedasticity.....	531
Figure 10.9.6. Studentised residuals plot for outlier detection.....	532
Figure 10.9.7. Q-Q scatterplot testing normality.....	553
Figure 10.9.8. Residuals scatterplot testing homoscedasticity.....	553
Figure 10.9.9. Studentised residuals plot for outlier detection.....	534
Figure 13.11.1. Q-Q scatterplot testing normality.....	537
Figure 13.11.2. Residuals scatterplot testing homoscedasticity.....	538
Figure 13.11.3. Studentised residuals plot for outlier detection.....	539
Figure 14.7.1. Ranked Values of CB Victimisation intensity by the levels of Sibling teasing.....	541
Figure 14.7.2. Ranked Values of CB Perpetration intensity by the levels of Sibling relationship.....	542
Figure 15.11.1. Scatterplot matrix among Self-esteem, Self-reported impulsivity, Self-control, Minimisation, and CB Victimisation intensity.....	544
Figure 15.11.2. Scatterplot matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Victimisation intensity.....	545
Figure 15.11.3. Scatterplot matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and CB Victimisation intensity.....	546
Figure 15.11.4. Scatterplot matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Victimisation intensity.....	547
Figure 15.11.5. Scatterplot matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality, and CB Victimisation intensity.....	548
Figure 15.11.6. Scatterplot matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Perpetration intensity.....	549
Figure 15.11.7. Scatterplot matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Perpetration intensity.....	550
Figure 15.11.8. Q-Q scatterplot testing normality.....	551
Figure 15.11.9. Residuals scatterplot testing homoscedasticity.....	552
Figure 15.11.10. Studentised residuals plot for outlier detection.....	553
Figure 15.11.11. Q-Q scatterplot testing normality.....	553
Figure 15.11.12. Residuals scatterplot testing homoscedasticity.....	554
Figure 15.11.13. Studentised residuals plot for outlier detection.....	555
Figure 15.11.14. Q-Q scatterplot testing normality.....	555
Figure 15.11.15. Residuals scatterplot testing homoscedasticity.....	556
Figure 15.11.16. Studentised residuals plot for outlier detection.....	557
Figure 18.4.1. Anti-bullying model according to significant factors/predictors.....	366
Figure 18.4.2. Anti-bullying model according to significant associations.....	367
Figure 18.4.3. Anti-bullying model according to significant differences.....	368
Figure 18.4.4. Suggestions according to prevalence rates, for parents, siblings and friends for building a positive environment capable of decreasing bullying; further research is advised.....	369
Figure 18.4.5. General anti-bullying proposition based on prevalence rates and descriptive statistics; further research is advised for validation.....	370

**Note: Due to Word version variation, the page numbers may deviate from what**

**the content lists report.**

## **Executive Summary - Thesis structure**

➤ **Part 1- SB & CB**

- ❖ **Chapter 1** - A general introduction to SB/CB & Methodology.

➤ **Part 2 - SB**

- ❖ **Chapter 2** - SB victimisation
- ❖ **Chapter 3** - SB perpetration
- ❖ **Chapter 4** - SB role switch.
- ❖ **Chapter 5** - Background factors and SB.
- ❖ **Chapter 6** - Family and friend related factors and SB.
- ❖ **Chapter 7** - Personality/behavioural factors and SB.
- ❖ **Chapter 8** - Summary of findings from Part 2.

➤ **Part 3 - CB**

- ❖ **Chapter 9** - Internet access and social media related factors and CB.
- ❖ **Chapter 10** - CB victimisation.
- ❖ **Chapter 11** - CB perpetration.
- ❖ **Chapter 12** - CB role switch.
- ❖ **Chapter 13** - Background factors and CB.
- ❖ **Chapter 14** - Family and friend related factors and CB.
- ❖ **Chapter 15** - Personality/behavioural factors and CB.
- ❖ **Chapter 16** - Summary of findings from Part 3.

➤ **Part 4**

- ❖ Chapter 17 - Anti-bullying education.

➤ **Part 5**

- ❖ **Chapter 18**
  - A comparison between SB and CB.
  - The anti-bullying model.
- ❖ **Chapter 19**
  - Limitations.
  - Implications and directions for future research.
- ❖ **Chapter 20** - Conclusion of the thesis.

## **Part 1**

### **Understanding School-bullying and Cyber-bullying**

#### ***Chapter 1- Understanding the Two Main Forms of Bullying***

##### **1.1. General Introduction to School Bullying and Cyber-Bullying**

More and more, the phenomenon of bullying is fast-becoming a worldwide concern, with governments, researchers, teachers, parents, and young people all getting involved in order to highlight the long-lasting consequences and complex factors associated with this type of behaviour. Research projects focused on school-bullying (SB) and cyber-bullying (CB), have taken various paths and covered many related areas, but have also signified the necessity to further understand the general phenomenon and continue research on both SB and CB, which this study explores in depth.

Gerler (2008) mentioned that although the need for adult intervention in bullying has been proven in the numerous studies conducted to understand the nature of bullying, still there are some highly-educated people supporting the idea that children need to get tougher and learn how to stand up for themselves independently. This problematic behaviour has attracted a lot of attention for various reasons but mainly because of the severity of consequences for both the victims and the bullies. During adolescence, a number of important yet turbulent changes occur in children's lives, thus, there is an increased likelihood of bullying experience, often resulting in depression and suicide (Mickelson, Eagle, Swearer, Song & Cary, 2001; Iyer, Dougall & Jensen-Campbell, 2013). Other studies have added that bullying negatively alters

people's lives and have gone some way to indicate the long-term psychological effects. Specifically it was shown that, victimisation at school, could result in increased anxiety, loneliness, decreased self-esteem, post-traumatic stress disorder (PTSD), truancy, poor academic performance, alcohol and drug abuse, low social competence and even suicide (Batsche & Knoff, 1994; Craig, 1998; Goldbaum, Craig, Pepler & Connolly, 2003; Graham, Bellmore & Juvonen, 2003; Kumpulainen, Rasanen, Henttonen, Almqvist, Kresanov, Linna, Moilanen, Piha, Tamminen & Puura, 1998; Kaltiala-Heino, Rimpela, Marttunen, Rimpela & Rantanen, 1999; Kochenderfer-Ladd & Ladd, 2001; Nansel, Overpeck, Haynie, Ruan & Scheidt, 2003; Olweus, 1993b; Williams, Chambers, Logan & Robinson, 1996). Other projects (Farrington, 1993), examined bullying in terms of later involvement in criminality and showed that there is a connection between bullying and adult criminal behaviour, with 60% of those who bullied in grades six and/or nine having at least one criminal conviction by age 24. However, many factors play a role in bullying involvement and the possibility of bullying behaviour progressing to crime engagement. Some of the factors function as protective and some increase the risk, and throughout the current study, factors related to family and friend environment, personality and behaviour, as well as background factors, are explored with great detail and cover research gaps identified in previous literature.

## **1.2. Introduction to SB**

Looking back, SB has existed since the first educational facilities were established centuries ago (see Archilochus of Paros, par. 5), and has changed terminology countless times (e.g. harassment, irritation, provocation, annoyance, etc.), however, the meaning has remained the same. Regardless of this, researchers, teachers, government and students themselves, all perceive bullying and understand

this terminology in different ways. It is highly likely that, the inconsistency in the terminology as well as the variation in perceptions of what bullying is, accounts for a main disagreement between scholars on whether CB is part of SB, or a unique bullying form on its own. And this aspect is explored intensively with this project in an attempt to provide clarity on the argument.

### **1.2.1. What is SB?**

Roland (2002) informed that the term bullying originates to Dan Olweus and his research on bullying in schools in the 90ties, and it means repetitive harassment or even severe abuse (Olweus, 1993). Olweus' definition includes the following criteria: (a) physically harming a person or indirect forms of victimisation; (b) victimisation that occurs repeatedly over time; and (c) victims who do not have equal strength or power to the bully (Craig, 1998; Carbone-Lopez, Esbensen & Brick, 2010). On the contrary, Hellstrom, Persson and Hagquist (2015) conducted a qualitative analysis in order to explore adolescents' understanding of the definition of bullying. Their findings revealed that understanding of bullying does not just include the traditional criteria of repetition and power imbalance that Olweus introduced. Adolescents frequently believe that even a single hurtful/harmful event should also be considered bullying, such in the case of single severe CB attacks that eliminate the criterion of repetition. Consequently, informing that the traditional criteria included in most definitions of bullying might not fully reflect adolescents' understanding of this behaviour. However, it must also be noted that perceiving each and every single act of violence, harassment or playful teasing amongst youngsters as bullying, might equally generate a problem for research. As the majority of children, might engage in some form of the aforementioned behaviours at some point in their lives, and particularly during the first years of their studentship, when respecting boundaries and empathy

levels are still in the development stage. In particular, empathy is one of the many factors that are examined in relation to bullying in this study, and a comparison between SB and CB is provided, attempting to identify similarities or differences between the two forms.

Still the puzzle remains and when schools and researchers assess an environment for bullying behaviours or attempt to measure the prevalence rates of bullying in a school, they face the likelihood of unrealistic and unreliable results, while the incongruence leads institutions to an inconsistency of decisions and actions (Cowan, 2012). Specifically, the rigid nature of Olweus' terminology has been challenged (Finkelhor, Turner & Hamby, 2012) . According to the latter authors, the definition excludes serious peer aggression, trivial conflicts among peers, and very serious acts of aggression. For example, if a student injures another student with an object, it is not technically bullying if it occurs only once and/or if there was no pre-existing power difference. Likewise, if a female student is being sexually assaulted by one of her classmates, it is not bullying, because it only happened once. The authors also mentioned that, when schools develop SB prevention programs, they aim to target and eliminate all interpersonal aggression, not only the repeated aggression in unequal relationships that Olweus terminology suggests. Taking the aforementioned into account, the significance of addressing the terminology's criteria was acknowledged, therefore, examined further with the present study, in an attempt to elucidate the divergence accompanying bullying-related research.

### **1.2.2. Types of SB**

Research studies (Wang, Iannotti, Luk & Nansel, 2010; Wang, Iannotti & Luk, 2012) have identified several types of SB, the most common ones being:

- Physical attack (e.g. hitting, pushing, and kicking, property damage, theft)

- Verbal harassment (e.g. calling someone names in a hurtful way)
- Social exclusion (e.g. ignoring or excluding others on purpose)
- Spreading rumours (e.g. telling lies about others)

Physical attack and verbal harassment are considered a direct form of confrontation, whereas social exclusion and spreading rumours are considered an indirect form of bullying; with verbal and relational bullying and victimisation prevailing physical bullying (Wang, Iannotti & Nansel, 2009). For example, Wang et al., (2009) conducted a study to examine the four types of SB in relation to socio-demographic characteristics, parental support and friends, in the USA. The researchers revealed the majority of the participants were more verbally bullied (53.6%) in a time period of two months, followed by social exclusion and spreading rumours (51.4%), such means are also reported in CB incidents, and last by physical attacks (20.8%). They also revealed that boys are more likely to be involved in verbal or physical bullying, whereas girls are more likely to engage in relational bullying.

As bullying and harassment have been persistent problems in schools all over the world, with some studies (Elias & Zinsd, 2003) suggesting that bullying affects at least 70% of the students, research has focused on different types of SB (Goldweber, Waasdorp & Bradshaw, 2013), including CB. However, some studies make distinctions and study the prevalence rates of the various SB types according to gender. For example, McClanahan and McCoy Jacobsen (2015) used data from more than 25,000 middle-school students in 15 countries, in Latin America and the Caribbean who participated in the Global School- based Student Health Survey (GSHS) between 2004 and 2009. They concluded that for girls, the most common form of bullying reported in 14 countries, was appearance-based, while for boys, physical aggression was the most common form in 10 countries, and appearance-

based bullying was the most common form reported in four countries. Other frequent SB types include name-calling (Boulton & Hawker, 1997), which falls under verbal SB. Other reported types have been relational, physical and electronic, or in some way CB. Some researchers (Bradshaw, Waasdorp & Johnson, 2015; 2014;) that looked deeper into the types of SB have indicated that there is an overlap in the different forms of victimisation. The current study looks deeper into the bullying means and compares between victims and perpetrators. Moreover, a research gap is addressed, by comparing between victims' and perpetrators' perceptions and reasons behind the bullying incidents. Similar studies (Wang, Iannotti & Nansel, 2009) have shown that prevalence rates of having bullied others or having been bullied at school for at least once in the last two months were 20.8% physically, 53.6% verbally, 51.4% socially, or 13.6% electronically. In addition, the latter study concluded that boys were more involved in physical or verbal bullying, whereas girls were more involved in relational bullying. Interestingly, boys were more likely to be cyber bullies, whereas girls were more likely to be cyber victims; an aspect that is also examined in this project, but with a sample that also includes college and university students.

### **1.3. Introduction to CB**

Along with the technological evolution, comes the more frequent, free and unmonitored access of children to Cyber Space (DePaolis, & Williford, 2015), and the increase of reported incidents of CB. This form of bullying has distressed parents, governments, schools and children, since the consequences for young individuals are equally severe as for SB, if not worse. Young people that struggle with CB, report that school personnel are not responding to their calls for action when incidents are reported to the school personnel (Agatston, Kowalski & Limber, 2007). However, Boulton, Hardcastle, Down, Fowles and Simmonds, (2014) suggested that teachers

are more willing to intervene when there are episodes of CB in comparison to SB, therefore suggesting that school employees consider CB to be more dangerous and more harmful than SB. To address this particular aspect, the present research differentiates between bullying occurring and the intensity level of the experiences, while compares between SB and CB victimisation/perpetration intensity, in an attempt to verify which form is more prevalent, and which form is more severe.

### **1.3.1. What is CB?**

Opposed to traditional SB that is discussed and examined in part one of this thesis, CB, which is presented in part two, is considered to be relatively new to research, although recognised as a highly problematic behaviour that has alarmed parents, educators and policy makers (Bryce & Fraser, 2013). In spite of the warnings and the high risks when people and particularly youngsters interact with others online, research (Bryce & Fraser, 2014) has shown that young people perceive this online interaction as necessary for relationship development and identity exploration. And although this online interaction and consequently CB becoming part of cyberspace users' lives the last decades, and despite the incomparable to SB research in terms of volume, still its definition has taken many forms over the years (Cesaroni, Downing & Alvi, 2012). However, the most accepted classification, presents CB as purposefully causing harm to others in a repetitive manner by using electronic devices (computers/, tablets, mobile phones), created for interpersonal communication (Rigby, 2002; Olweus, 2003; Hinduja & Patchin, 2008; Pepler, Jiang, Craig & Connolly, 2008; Turan, Polat, Karapirli, Uysal & Turan, 2011). CB terminology also varies amongst studies (e.g. online harassment, teasing, etc.), with this inconsistency potentially accounting for the variation in the reported prevalence rates (Modecki, Minchin, Harbaugh, Guerra & Runions, 2014), while also indicating this aspect as a

similarity to the difficulties faced when researching SB. Additionally, as with SB, it is highly likely that the inconsistency in CB reported prevalence rates is due to cultural differences, as well as differences in terms of Internet access (Mura, Topcu, Erdur-Baker & Diamantini, 2011). Consequently, with such questions still remaining understudied, the present project explores further aspects such as, ethnicity, religion, and the role of the Internet and its use; all in relation to CB experiences and the intensity of such incidents.

On the other hand, Willard (2004) focused more on the reasons that bullying begun to take place online, and proposed that CB occurs mainly for three reasons: a) the bully does not encounter the victim face to face, therefore, cannot realise that the victim can be hurt; b) it is such a frequent behaviour that leads the bully to believe that it is acceptable; and c) the mistaken feeling of privacy that the bully believes to have online. Bertolotti and Magnani (2013) agreed and further commented that CB is an outcome of the social media, as they promote a disconnection from real life. Consequently, as with SB, likewise for CB, the current research, studies further the reasons that lead CB perpetrators to exhibit such behaviour online, and cross-references with the CB victims' perceptions. Though, the possibility of the social media playing a bigger role, than individual personality characteristics or background factors, is also explored, in chapter nine.

In addition, Williams and Guerra (2007) suggested that a negative school climate and lack of peer support might be contributing factors. On the other hand, students themselves believe that certain individuals lack the ability to control their behaviour when angry, thus, resulting in such online abusive behaviours (Hopkins, Taylor, Bowen & Wood, 2013). Therefore, as anger is presented in literature as a possible risk factor, it is examined both in association to SB and CB.

Finally, Topcu, Yıldırım and Erdur-Baker (2013) found that the majority of the participants in their study confused CB with cyber-crime, yet they also revealed that CB bullies commonly perceive theirs actions as a joke and easy to perform; although, others admit their intention to harm or get revenge. The latter motivational reason is closely connected to behaviours originating at school in the form of SB and continuing online as CB (Cassidy, Jackson & Brown, 2009). Under such circumstances CB could be perceived as part of SB, rather than a form on its own, therefore to clarify the latter, this project looks at the possibility of CB incidents occurring due to previous incidents taking place in real life settings, and vice-versa.

### **1.3.2. Types of CB**

According to Willard (2006), there are other similarities between SB and CB; particularly in the way, they are expressed. Both CB and SB can include verbal and indirect methods, e.g.: ridiculing the victim (through name-calling or use of cursing or bad language); offending; humiliating; intimidating; threatening; blackmailing; slandering; impersonating; spreading mischievous rumours and lies about the victim; public exclusion or removal of an individual from a group; cyber-stalking; and any other type of elimination that keeps the victim from participating in the surrounding social activities.

Students however, indicate that the most common forms of CB are:

- a) Posting an embarrassing or humiliating video of someone on a video-hosting site such as YouTube
- b) Setting up profiles on social networking sites intending to humiliate a victim
- c) "Happy slapping" – when people use their mobile phones to film and share videos of physical attacks

- d) Posting or forwarding someone's personal or private information or images without their permission – known as "sexting" when the content is sexually explicit
- e) Sending viruses that can damage another person's computer
- f) Making abusive comments about another user on a gaming site (NHS, 2015).

This particular aspect is examined in this project and a comparison between the most prevalent SB and CB means is presented, which also adds to the clarification on which form of bullying is more intense.

#### **1.4. Similarities, Differences between SB, and CB**

Huang and Chou (2010) emphasised that CB significantly differs from SB, particularly, when considering the non-existent power imbalance between the victim and the bully, which characterises SB. Although, in many projects power imbalance is not specified, while in terms of CB the level of knowledge of the electronic devices could be perceived as power imbalance. Nevertheless, both types of bullying involve the repetitive behaviour of bullies targeting victims with intent to harm, while an additional similarity is that 90% of both CB and SB victims do not share their victimisation with an adult (Juvonen & Gross, 2008). However, as mentioned earlier young individuals often perceive one single hurtful act as bullying, which increases the difficulty in measuring reliable and realistic prevalence rates. Nonetheless, two rigid aspects that differentiate CB from SB is the ability of the perpetrator to remain anonymous, and the unlimited number of people CB perpetrators can effortless harass, regardless of the time and/or the geographic location (Hemphill, Tollit, Kotevski & Heerde, 2015).

Modecki, et al., (2014) however, reported that there is a correlation between the two forms of bullying; in particular, they suggested that children who are involved

in CB are usually involved in SB. This was also supported by Cross, Lester and Barnes in 2015, who suggested that if students report CB they usually report SB as well. Similarly, Tarablus, Heiman and Olenik-Shemesh (2015) concluded that there is an apparent overlap between involvement in CB and involvement in SB; with SB victims tending to be CB victims and SB bullies tending to be CB bullies; which was further supported (see Kraft & Wang, 2009). Perhaps, the overlapping effect is a result of the need of SB victims to get revenge, as briefly discussed earlier.

Opposing, Wang, Iannotti and Nansel (2009) supported that CB behaviour differentiates from SB, despite the overlap. And others (Bauman & Newman, 2013) proposed that it is not the type of bullying that creates more or less distress to the victims, but the nature of the incidents, and the commitment of bullies to succeed in hurting the victims (Jose, Kljakovic, Scheib & Notter, 2012). Subsequently, this project simplifies the disagreement by examining the likelihood of SB being associated with CB, whilst looking for significant differences and other possible similarities.

### **1.5. Prevalence of SB and CB**

Empirical findings have shown that online harassment and other similar types of bullying are a worldwide concern. It appears that, since 2002, CB is on the rise (Rivers & Noret, 2010; Rigby & Smith, 2011), but still lower than SB (Modecki, et al., 2014), although which form is more hurtful remains in dispute. Some of the latest reported rates ranged from 5.3% to 31.5% for cyber perpetration and between 2.2% to 56.2% for cyber victimisation. On the other hand, rates of SB perpetration ranged from 9.68% to 89.6%, and between 9% and 97.9% for bullying victimisation. Hemphill, Tollit, Kotevski and Heerde (2015) in their study found that 17% of their participants reported CB, and 33% of students had been victims of SB, while 12% of

students had been victims of both types of bullying with CB victims being primarily female. Another study (Mishna, Cook, Gadalla, Daciuk & Solomon, 2010) reported that out of the 2,186 students that participated, 49.5% of students indicated that they had been bullied online and 33.7% indicated they had bullied others online. In addition, they reported that most bullying perpetration occurred by and to friends, with victims suffering with anger, sadness, and depression after being bullied online. Perpetrators explained that they bullied others online because it made them feel as though they were funny, popular, and powerful, regardless of the guilt they felt afterwards. As it can be seen, prevalence rates vary widely; it might well be that the inconsistency in the terminology as well as the differentiation in perception of what bullying is, between researchers and those experiencing bullying, account for the immense difference in the reported rates amongst studies.

Although, geographical and cultural variations should be taken into account, as prevalence rates for both SB and CB vary extensively from country to country, from city to city and even between communities of the same small town. For example, in New Zealand, text-bullying has been an increasing concern, with prevalence rates reaching up to 43% of students (Raskauskas, 2009; 2010), while this form could be perceived both as SB and CB, as it occurs at school but also continues after school, with the majority of the victims reporting both SB and CB victimisation.

In Australia, the rates appear less and research has shown that in 2010, 30.5% out of the 3,000 students, who participated in the project, reported SB, 14% reported CB and more than 7% experienced both types of harassment. In addition, it was revealed that 64% of the victims were females, 83% of the cyber victims knew the perpetrator's identity from their social environment; while, a noticeable 25% of the

cyber bullies admitted that their targets were people they did not know from real life (Campbell, Spears, Slee, Kift & Butler, 2011).

In Europe, and specifically in Sweden research showed that girls are more likely to be involved in CB than boys, while boys are more likely to be involved in SB (Beckman, Hagquist & Hellstrom, 2013). In Ireland, CB rates are up to 20% with 95% of the victims reporting that they know the perpetrator from their social environment, perhaps due to previous SB engagement that resulted in retaliation, with SB reported rates reaching 55%, and a 28% of the victims reporting isolation and depression (NABC, 2015). It might well be that retaliation accounts for other high reported rates, as Espelage and Holt (2013) suggested that 60% of victimised students reciprocate with the same bullying means. Staying in Europe and particularly Greece, Sygkollitou, Psalti, and Kapatzia (2010) reported that out of the 450 participants in their study, 54% admitted cyber-victimisation, while more than 50% witnessed it. The latter researchers also found that more than 40% of the participants claimed not knowing their perpetrator, verifying that anonymity is a great factor in cyber-bullying incidents (Antoniadou & Kokkinos, 2015; 2013). Similarly, in Germany, Scheithauer, Hayer and Petermann (2006) found that 12.1% of students were identified as bullies, 11.1% as victims, and 2.3% as bully-victims. Whereas, in the UK, the concern appears higher after the NSPCC conducted an independent research study in 2015, and revealed that nearly half of young people (46%) have experienced SB victimisation at some point in their lives. Moreover, the 2014 report on CB from the Counselling Service Childline in the UK revealed that CB concerns rose by 87% in 2013 since 2012 (NoBullying, 2015).

In the USA, findings from BullyingStatistics.Org (2015) indicated rates of CB in high school students, to have risen up to 80%, with increasing numbers of female

students attempting or achieving suicide, as well as homicides as a form of revenge (Messias, Kindrick & Castro, 2014). Whereas, SB prevalence rates seem to be lower approximately 28% of students ages 12 to 18 being SB victimised (Ansary, Elias, Greene & Green, 2015).

On the other hand, SB victimisation rates seem high, and reaching 46.6% of students (Fleming & Jacobsen, 2009); whereas, in Taiwan, Chang, Lee, Chiu, Hsi, Huang and Pan (2013), found that in 2010 out of the 2,992 10<sup>th</sup> grade students that participated in the survey, 18.4% had been cyber-victims, 5.8% cyber-bullied someone else, 11.2% had both cyber-bullied another student and experienced CB themselves by another person. Additionally, 8.2% of the cyber-victims had also been bullied at school, 10.6% bullied others at school and 5.1% experienced SB both as a victim and as a perpetrator. Whilst, also signifying that the prevalence rates are highest for verbal, followed by physical and last by CB.

Finally, another example is Canada, where research revealed that up to 8% of middle school and high-school students were SB victimised at least once a week, with up 10% of the same group admitting SB perpetration. In addition, 73% of CB victims reported that they are frequently threatened online or by text; while another survey from the Canadian Kid's Help Line showed that from the 2,474 participants of the survey, 70% reported frequent CB victimisation, and 44% admitting CB perpetration (NoBullying, 2015).

To conclude, as stated earlier, the prevalence rates differentiate from study to study, from country to country and there appears to be no universal agreement on which form is more prevalent, although, there is a definite indication that both forms are becoming more and more interconnected. In this study, the matter of the overlapping effect is deeply considered as the role switch effect between victim and

perpetrator is explored, whilst also addressing retaliation as a possible antecedent of perpetration; both aspects inspected in terms of SB and CB.

### **1.6. Consequences of SB and CB**

The most extensively studied area related to bullying is its negative impact on the individuals that engage in the behaviour, either as a victim or bully, for both SB and CB<sup>·</sup>. The victims' psychological and physical state attracted most of the interest (Fekkes, Pijpers & Verloove-Vanhorick, 2004; Santalahti, Sourander, Aromaa, Helenius, Ikaheimo & Piha, 2008; Aoki, Miyashita, Inoko, Kodaira & Osawa, 2010), while the bully and the victim-bully come last as focus areas (Connors-Burrow, Johnson, Whiteside-Mansell, Mckelvey & Gargus, 2009). The most prevalent consequence that derives from victimisation experiences is depression that affects girls much earlier than boys (Kaltiala-Heino, Frojd & Marttunen, 2010).

Regardless of the group that an individual might belong to, the consequences are severe for each type, particularly in relation to the mental health of the victims (Huang & Chou, 2010; Bertolotti & Magnani, 2013; Marcum, Higgins, Freiburger & Ricketts, 2012). Researchers rightfully focused on victimisation outcomes as it has been shown that victimisation at school results in increased anxiety, loneliness, post-traumatic stress disorder (PTSD), alcohol and drug abuse, early smoking, low social

---

<sup>·</sup> See: Batsche & Knoff, 1994; Craig, 1998; Goldbaum, Craig, Pepler & Connolly, 2003; Graham, Bellmore & Juvonen, 2003; Kumpulainen, Rasanen, Henttonen, Almqvist... & Puura, 1998; Kaltiala-Heino, Rimpela, Marttunen, Rimpela & Rantanen, 1999; Kochenderfer-Ladd & Ladd, 2001; Nansel, Overpeck, Haynie, Ruan and Scheidt, 2003; Olweus, 1993; Williams, Chambers, Logan & Robinson, 1996; Luk, Wang & Simons-Morton, 2010).

competence, and even suicide (Garnefski & Kraaij, 2014). Nunn (2010) proposed that there is an increase in psychopathology in both young men and women almost two decades after experiencing bullying. However, the list does not end here; other associated consequences are Attention Deficiency Hyperactivity Disorder (ADHD) (Yen, Yang, Wang, Lin, Liu, Wu & Tang, 2014), insomnia and early sexual behaviour (Fleming & Jacobsen, 2009), eating disorders, particularly for girls (Kaltiala -Heino, Rimpela, Rimpela & Rantanen, 2000), lower family relationship quality (Sticca & Perren, 2013), outbursts of anger (Kaltiala-Heino & Frojd, 2011) and violence (Vassallo, Edwards, Renda & Olsson, 2014; Brunstein, Klomek, Marrocco, Kleinman .... & Gould, 2007).

More commonly, there is negative impact on self-esteem (Carbone-Lopez, Esbensen & Brick, 2010) and development of mental health issues in adulthood (Lund, Nielsen, Hansen, Kriegbaum .... & Christensen, 2009; 2008; Klomek, Sourander, Kumpulainen, Piha, Tamminen .... & Gould, 2008; Klomek, Kleinman, Altschuler, Marrocco .... & Gould, 2013). Likewise, academic withdrawal occurs (Lehman, 2014), social phobia (Yen, Liu, Ko, Wu & Cheng, 2014), introversion (Baly, 2004), social isolation (Kendrick, Jutengren, Stattin, 2012) and truancy (Meltzer, Vostanis, Ford, Bebbington & Dennis, 2011). However, it has been found that the persistency of the consequences of bullying to victims and bully-victims are often linked to low socioeconomic status (Due, Damsgaard, Lund & Holstein, 2009).

As already mentioned, the consequences for cyber-victims are equally severe to traditional SB victims (Huang & Chou, 2010; Messias, et al., 2014; Raskauskas, 2009; 2010; Reed, Nugent & Cooper, 2015). However, Wang, et al. (2011), found that cyber-victims experience the highest levels of depression (Baker & Tanrikulu, 2010; Messias, et al., 2014) in comparison to bullies and bully-victims. CB victims

have been known to often experience sleep difficulties, less confident with increased academic challenges, exhibit aggressive behaviours and might experience nervousness and physical discomfort (e.g. dizziness, headaches, stomach aches, increased fatigue, back aches); with some avoiding any electronic communication. Although victims of SB are found to experience high rates of depression, CB victims exhibit similar levels depending on the frequency of the cyber-attacks (Wang, et al., 2011). However, it was found that depression accounts for 21.63% of the variance in suicide attempts for SB and 74.43% for CB (Bauman, Toomey & Walker, 2013). Which could be preserved as reasonable, despite how disturbing it might be, as CB bullies can destroy the social status and image of a victim within minutes. For example, such an outcome could result when CB bullies disseminate the victim's personal information or intimate private photographic material online, frequently followed by a flare-up during which other CB bullies further disseminate the information; thus leading the victim to perceive suicide as the sole option for an escape.

Text-bullying has the same effect on victims of both SB and CB (Raskauskas 2009; 2010) in that they both exhibit more depressive symptoms, while Reed, Nugent and Cooper (2015) reported a 14.7% of suicide rate among the individuals who are cyber bullied, and a 21.1% rate for the victims who experience both forms of victimisation. Particularly, in the USA, Reed, et al. in 2015 revealed that female adolescents who reported CB victimisation also reported higher rates of depression and suicidal behaviours compared to their male peers..

Although research has shown that adolescents who experience physically violent victimisation are more likely to act violently towards others, Litweller and Brausch (2013) showed that both SB and CB are associated with substance use,

violent behaviour, unsafe sexual behaviour, and suicidal behaviour, with a cyclical relationship between being a victim of violent bullying and violently bullying often occurring. Bullies tend to also suffer crime-related consequences during their late adolescence and adulthood. Bullies, in particular, usually lose their popularity by late adolescence, their friends are mainly other bullies, they often drop out of school and they begin to commit petty crimes. In addition, it is highly likely to develop antisocial personality disorders and substance abuse disorders, as well as suffering from depression (Mount, 2005).

Many researchers argue that such behaviours are delinquent acts that inevitably will lead to the onset of a life of crime; however, regarding CB, Cesaroni, et al., (2012) consider online harassment normal or common youthful behaviour, which most adolescents grow out of, but which adults often find troubling. Despite the variety of opinions, empirical findings have shown that there is a strong association between SB, CB and crime (Hemphill, Kotevski & Heerde, 2015).

In addition, previous research has also shown that social and psychological consequences of SB victimisation could result in crime involvement during adulthood. Particularly, strong indications in relation to later crime involvement, have been reported for increased levels of anxiety at an early age (Modestin, Thiel & Erni, 2002), loneliness during school years (Rokach, 2000; Rokach, 2001), low self-esteem (Oser, 2006; Asencio, 2013), depression (Modestin et al., 2002), PTSD and anger (Becker-Blease & Freyd, 2005; Fombonne, Wostear, Cooper, Harrington & Rutter, 2001), truancy and poor academic performance (Katsiyannis, Thompson, Barrett & Kingree, 2013; Arum & Beattie, 1999; Haapasalo & Pokela, 1999), alcohol, drug abuse (Bennett, Holloway & Farrington, 2008), and social withdrawal (Leschied, Chiodo, Nowicki & Rodger, 2008). Whereas, other projects (Ramchand, MacDonald,

Haviland & Morral, 2009; Falshaw, Browne & Hollin, 1996) that focused on the relationship between SB perpetration at school and adult criminality, have confirmed that school bullies have an increased chance of becoming adult criminals (McDougall, Hymel & Vaillancourt, 2009). For example, Farrington (1993) found that 60% of those who bullied in grades six and/or nine had at least one criminal conviction by age 24, while 35 to 40% had three or more convictions than non-bullying individuals.

Similarly, in terms of CB and crime, Hay, Meldrum and Mann (2010) concluded that bullying is consequential for both externalising and internalising forms of deviance, although both types of bullying have been found to be associated with violent behaviour (Vieno, Gini & Santinello, 2011) with CB accounting for slightly more variance in violent behaviour than SB (Litwiller & Brausch, 2013). This online aggression could be a result of the online dis-inhibition effect, due to anonymity and perceptions of no repercussions for their actions (Low & Espelage, 2013).

Finally, one common finding that emerges from empirical research in criminology and research on bullying is the likelihood of offenders and bullies to engage in less severe crimes including harassment, before they commit more severe actions; such behaviours usually begin by misbehaving at home or at school (Ramchand, et al., 2009; Richards, 1997; Loeber & Le Blanc, 1990; Bender, 2010; Crowley, 2013; Cuadra, Jaffe, Thomas & DiLillo, 2014; Fox, Jennings & Farrington, 2015). While in addition, many of the consequences of SB and CB involvement function also as precursors of further involvement in bullying behaviour, either as a victim or a perpetrator. In other words, it is not clear where the aforementioned stop functioning as risk or preventive factors for bullying involvement and where they begin as consequences. However, as the literature on bullying consequences is quite extensive, the present study is focused only on the factors, whilst comparing between

SB and CB and the likelihood of the factors having an effect on the two forms of bullying.

### **1.7. Risk and Preventive Factors Related to SB and CB**

Literature has shown that both generic background factors, environmental, and personality factors play a role in SB involvement (Connolly & Beaver, 2014). Such factors that repeatedly appear in SB related literature include: lack of peer support (Williams & Guerra, 2007; Seeds, Harkness & Quilty, 2010; Thornberg, Rosenqvist, Johansson, 2012; Yang, et al. 2013; Lehman, 2014; Mueller, James, Abrutyn & Levin, 2015; Borowsky, Taliaferro & McMorris, 2013), lack of self control (Hopkins, Taylor, Bowen & Wood, 2013, Cassidy, Jackson & Brown, 2009) and particularly emotional control (Hemphill, Tollit, Kotevski & Heerde, 2015), self-esteem (Jankauskiene, Kardelis, Sukys & Kardeliene, 2008), family conflict (Hemphill, Kotevski, Tollit, Smith, Herrenkohl, Toumbourou & Catalano, 2012), anger (Rose & Espelage, 2012), guilt (Roberts, Strayer & Denham, 2014), aggression (Egan & Perry, 1998; Schwartz, McFadyen-Ketchum, Dodge, Pettit & Bates, 1999), impulsivity (Losel & Bender, 2014), empathy (Farrington & Baldry, 2010; Stavrinides, Georgiou & Theofanous, 2010; Jolliffe & Farrington, 2006; Topcu & Erdur-Baker, 2012), parental discipline, connectedness and monitoring (Mlisa, Ward, Flisher & Lombard, 2008; Shetgiri, Lin & Flores, 2013; 2012; Cluver, Bowes & Gardner, 2010; Pengpid and Peltzer, 2013; Hemphill, Tollit & Herrenkohl, 2014; Dearden, 2004; Baldry & Farrington, 2005), parental warmth, sibling warmth (Bowes, Maughan, Caspi, Moffitt & Arseneault, 2010; Karlsson, Stickley, Lindblad, Schwab-Stone & Ruchkin, 2014; 2013), family teasing about appearance (Sapouna & Wolke, 2013), coping skills

(Khamis, 2014; 2015), mental health (Merrill & Hanson, 2016; Kumpulainen, Rasanen & Puura, 2001), friendship quality and quality of friends (Warden & Mackinnon, 2003; Rosan & Costea-Barluti, 2013; Navarro, Yubero & Larranaga, 2015; Pellegrini, Bartini & Brooks, 1999; Bollmer, Milich, Harris & Maras, 2005; Salmivalli, Sentse, Dijkstra & Cillessen, 2013; Hunt, 2015), social skills (Reijntjes, Kamphuis, Prinzie & Telch, 2010; Ball, Arseneault, Taylor, Maughan, Caspi & Moffitt, 2008), and moral values or morality in general (Pornari & Wood, 2010).

Likewise, previous studies showed that numerous factors have an impact on CB, including both personal and environmental factors (Xiao & Wong, 2013). Incorporating, low emotional self-control (Hopkins, Taylor, Bowen & Wood, 2013; Cassidy, Jackson & Brown, 2009; Hemphill, Tollit, Kotevski & Heerde, 2015), low self-esteem (Jankauskiene, Kardelis, Sukys & Kardeliene, 2008), family conflict and academic support (Hemphill, Kotevski, Tollit, Smith, Herrenkohl, Toumbourou & Catalano, 2012; Hemphill, Tollit, Kotevski & Heerde, 2015). Other factors are anger (Rose & Espelage, 2012), guilt (Roberts, Strayer & Denham, 2014), aggression (Egan & Perry, 1998; Schwartz, McFadyen-Ketchum, Dodge, Pettit & Bates, 1999), impulsivity (Losel & Bender, 2014), empathy (Farrington & Baldry, 2010; Stavriniades, Georgiou & Theofanous, 2010; Jolliffe & Farrington, 2006; Topcu & Erdur-Baker, 2012), coping skills (Khamis, 2014; 2015), morals (Pornari & Wood, 2010). Likewise, extensive use of social media (Willard, 2004; Bertolotti & Magnani, 2013; Topcu, Yıldırım & Erdur-Baker, 2013), media violence exposure (Fanti, Demetriou & Hawa, 2012), parental monitoring (Mishna, Khoury-Kassabri, Gadalla & Daciuk, 2012) and social support (Tarabulus, et al., 2015) could affect CB. Other studies (Yang, Stewart, Kim, Kim, Shin, Dewey & Yoon, 2013) signified lower academic achievement as a factor for CB perpetration and victimisation. Similar

factors include using a computer for many hours every day, sharing passwords with friends, talking to strangers online and experiencing SB (Mishna, Khoury-Kassabri, Gadalla & Daciuk, 2012).

Many of the previous factors have also been studied in the field of criminology, mainly because many of the aforementioned factors have an impact on the likelihood of adolescents engaging in crime involvement, either in the form of juvenile delinquency or later adult criminality. The latter has been proven by various studies (see Modestin, Thiel & Erni, 2002; Rokach, 2000; Rokach, 2001; Oser, 2006; Asencio, 2013; Becker-Blease & Freyd, 2005; Fombonne, Wostear, Cooper, Harrington & Rutter, 2001; Katsiyannis, Thompson, Barrett & Kingree, 2013; Arum & Beattie, 1999; Haapasalo & Pokela, 1999; Bennett, Holloway & Farrington, 2008; Leschied, Chiodo, Nowicki & Rodger, 2008), which signified that, anxiety, loneliness, decreased self-esteem, depression, PTSD, anger, alcohol, drug abuse and social withdrawal, are significantly related to crime involvement.

It can be seen that the relationship between a bullying behaviour at school and adult criminality has been deeply examined and research has confirmed that youngsters involved in bullying have increased possibilities of becoming adult criminals (McDougall, Hymel & Vaillancourt, 2009). Moreover, various scholars (for example see Moon, Morash & McCluskey, 2012) have attempted to understand and explain bullying by utilising the Strain Theory that majorly circulates in the field of criminology and sociology. The latter authors and many others had hypothesised that youth who experience victimisation by peers and conflict with parents are more likely to engage in bullying. Some of the limited studies (Glassner & Cho, 2018) that utilised the Strain Theory, concluded that bullying victimisation directly increases diminished moods for males and females in adolescence, while in addition increases

substance use in adolescence and young adulthood, but only for males. Others (Jang, Song & Kim, 2014) stated that SB victimisation can create negative emotional strains, and combined with the anonymity in cyber space, youngsters engaged in CB perpetration as the externalised response to the strain. Consequently, indicating that the two forms are interconnected whilst one form could be an outcome of the other.

It is evident that the field of bullying could be part of criminology studies and/or psychological studies, as it is both related to crime and explained by the psychology behind bullying involvement. Consequently, bullying could be perceived as an interest area for both psychology and criminology; although, given the extent of the field, the expansion of the phenomenon, and the severe consequences, it could well be argued that bullying has formed an independent field.

Taking the aforementioned into account, and the attempt of various disciplines to understand and tackle bullying, adding the evidence that SB and CB are affected by many common factors, it is concluded that more in-depth exploration the forms and the factors is required. Moreover, although some of the factors have been deeply explored, in most studies they have been studied individually. And although such previous works are deeply appreciated, as they set the stepping stones for this study, they lack the comparison between the forms of bullying, they are not based on one sample for direct assessment, and in most cases have not been conveyed from theory to practice and utilised within an anti-bullying model. Additionally, after conducting an extensive review of the existing literature, it is concluded that, no project has attempted to incorporate a broad number of factors and test them against both forms of bullying; whilst using the same sample that, would allow for a direct and reliable comparison.

## **1.8. The Present Study' Rationale**

Various studies focused on a number of areas related to bullying; including physical aggression (Tremblay, 2015), housing situation (Leventhal & Newman, 2010), consequences, social support (Conners-Burrow, Johnson, Whiteside-Mansell, Mckelvey & Gargus, 2009), breakfast-skipping (Sampasa-Kanyinga, Roumeliotis, Farrow & Shi, 2014), medical conditions (Adickes, Worrell, Klatt, Starks, Vosicky & Moser, 2013), ADHD (Dalsgaard, Mortensen, Frydenberg & Thomsen, 2013), disabilities (Purdy & McGuckin, 2015), sibling bullying (Arseneault, 2015), and many other areas of focus (see Table 1.10.1 Appendix A for further examples).

Whilst, employing a variability of measurements tools and means to studying SB and CB (see Lapidot-Lefler & Dolev-Cohen, 2015; Olweus, 1991; Wang, Nansel & Iannotti, 2011; Williams & Guerra, 2007; Sticca & Perren, 2013; Price, Chin, Higa-McMillan, Kim & Christopher Frueh, 2013; Erdur-Baker & Kavşut, 2007; Topcu & Erdur-Baker, 2010; Tarablus, Heiman & Olenik-Shemesh, 2015; Cetin, Yaman & Peker, 2011) (see Table 1.10.2 Appendix A for more examples). In spite of the continuous attempts, what most of the previous projects fail to address, is the exploration of SB and CB in a collective way with the same focus and weight on both forms, while taking into account the risk and preventive factors that could be common for both forms.

Therefore, by taking into account the severity of bullying consequences , the call for more understanding and the identified research gaps, the evolution of bullying means, the high but inconsistent rates, as well as the difficulty of anti-bullying policies to succeed in preventing or efficiently intervening when SB and/or CB occurs, led to this three-year project. The project focuses on a variety of aspects related to SB and to CB and explores numerous well-studied and neglected factors drawn from past literature (Tzani-Pepelasi, Ioannou, Synnott & Ashton, 2018). The

main motives for this study included the will to contribute to research in order to tackle SB and CB, to assist teachers, psychologists, parents and students to understand that the focus should not be solely on bullies or solely on victims, nor should the focus be only on SB or CB, to clarify inconsistencies in previous literature, and of course to compare between the forms, allowing for an aggregated anti-bullying model to emerge that, could potentially address both SB and CB. It is hypothesised that all forms of bullying are connected, suggesting that there could be an aggregated flexible model that could include intervention and prevention strategies for both victims and bullies, for both SB and CB.

### **1.9. Aims**

The aim of the current project was to explore highly studied as well as neglected risk and preventative factors in relation to SB and CB; explore the relationship of these factors with SB and CB, and finally provide a comparison of the factors in relation to SB and CB, whilst accounting for the prevalence rates. All with the aspiration of creating a functional, detailed and inclusive SB/CB anti-bullying model.

### **1.10. Methodology**

For the present study, quantitative methodology was utilised, as the comparison between the two forms of bullying, in relation to the risk/preventive factors necessitated it. The use of the valid and previously applied measurement scales that, are explained in detail later on, allowed for an in depth examination of participants' background factors (e.g. age, ethnicity, religion), factors related to family and friend environment (e.g. communication with parents, friends' support), personality and behavioural factors (e.g. self-esteem, aggression, etc.); all tested against SB and likewise CB, followed by a comparison of the analogous results.

Although, there was one qualitative question, included at the end of the survey, allowing participants to comment further, but the response to this question was very low. Moreover, the quantitative approach and the utilisation of a survey allowed for an extensive exploration of SB/CB victimisation and SB/CB perpetration.

Additionally, it should be mentioned that the current research project is based on one study with one sample. The aim of the study was mainly to compare how risk and preventive factors that have been addressed or neglected in previous research, relate, differentiate and impact SB and CB; the comparison led to the developed anti-bullying model that is presented in chapter 18. For this reason, the comparison had to be materialised with the same sample, as previous research has shown that comparisons between two or more independent samples can compromise the validity of findings due to possible methodological differences between the studies as well as differences in participants' characteristics (Marrugat, Vila & Elosua, 2013). In more detail, the reasons behind this decision were five: 1) the in-depth examination of the two forms of bullying and the examined factors by utilising the same sample, which leads to the second reason; 2) a direct comparison between participants' SB and CB experiences; 3) a direct comparison between participants' personality/behavioural characteristics, family/friend factors, and background factors in relation to SB and CB; 4) the validity, integrity and credibility of the comparison, which leads to the fifth reason; 5) the validity, integrity and credibility of the resulted collective anti-bullying model that addresses both SB and CB, while incorporating both victimisation and perpetration. Moreover, the present study and the findings function as a stepping stone for further research, during which the survey will be repeated with improvements to compensate for this study's limitations that will also result in a comparison between the current study and the future study; therefore, allowing for

improvement and adjustment of the anti-bullying model. It must also be mentioned that, to our knowledge, the inclusion and exploration of all the utilised factors in this study with one sample, has not been attempted previously; therefore, adding to the novelty of this study and the developed anti-bullying model.

### **1.10.1. Sample/Participants**

As the aim of the study was to focus both on SB and CB, but also compensate for the inattention by previous research (Myers & Cowie, 2017) on examining SB and CB collectively, with samples older than school aged students, participants of any age were allowed to part to the survey. The focus in terms of nationality and domicile was the UK; however, as the study was advertised online via the social media, there was no control of who and where would complete the questionnaire. Nonetheless, as it was expected, the survey advertisement had the most effect in the targeted country (UK), with a small percentage from the overall sample originating from other countries. Still, the majority of participants were born in the UK ( $n = 339$ , 83%) and lived in the UK ( $n = 377$ , 92%) at the time of the survey completion. The sample included 408 participants ( $N = 408$ ). Participants' age varied from 11 years old to 63 years old ( $M = 23$ ,  $SD = 8$ ) (see Table 1.9.1.1. Appendix B). Out of the 408 participants, 337 (83%) were female and 71 (17%) male; 310 (76.5%) of participants were white, 67 (15.6%) Asian/Asian British, 14 (3.5%) were mixed, 10 Black (2.2%), five (1%) Middle Eastern, one (.2%) Latin and one (.2%) reported no ethnic background. In terms of religion, 211 (52.1%) of participants reported no religion, 125 (30.4%) Christian of all denominations, 65 (15.3%) Muslim, and seven (1.4%) other. Moreover, 351 (88.9%) were still at school of the time of the survey completion and 45 (11.1%) were not in education. Out of the 363 that were still in education, 351 (85.9%) were at university level, 10 (2.5%) in secondary school and five (1.2%) in

college. The majority of participants (365, 89.4%) were heterosexual, 29 (7.2%) bisexual, eight (2%) homosexual and six (1.5%) did not want to respond to the question. In addition, the majority of participants (235, 57.3%) were also working at the time of the survey completion, 152 (37.5%) were not and 21 (5.2%) were volunteering. In terms of disabilities, 355 (86.9%) did not suffer from any kind of disabilities, 45 (11.1%) did and eight (2%) did not want to respond to the question. Furthermore, 111 (27.4%) participants reported that they had been diagnosed with some kind of mental disorder, 284 (69.4%) had not, and 13 (3.2%) preferred not to answer. Finally, 347 (84.9%) of participants did not suffer from any physical problems, 54 (13.3%) suffered from some kind of physical problem and seven (1.7%) preferred not to say (see Table 1.9.1.2. and Table 1.9.1.3. in Appendix B for further details). It should be mentioned that the variables were tested for normality (Westfall & Henning, 2013); however, normality was not taken into account in some occasions as with a sample larger than 100 both parametric and non-parametric tests are appropriate (Statistica, 2003). In addition, where data from variables were non-normally distributed, a RIN transformation (Log) was performed; however, as the results did not differentiate, the original variables were used throughout the analysis. Moreover, Schmidt and Finan (2018) supported that dada transformation does not guarantee valid results while may bias estimates.

### **1.10.2. Material/Scales Utilised in the Questionnaire/Survey**

For the development of the questionnaire eight validated scales were used to measure personality and behavioural factors; those being: 1) the Multi-Dimensional Emotional Empathy Scale (MDEES), which measures empathy and sub-aspects (Caruso & Mayer, 1998) and represents seven variables tested in this project; 2) the Self-esteem Inventory (RSES) (Rosenberg, 1965), which is one individual variable; 3)

Aggression Scale- (Buss & Perry, 1992) that represents six variables, including anger that was examined individually; 4) the Impulsivity-Teen Conflict Survey (ITCS) (Bosworth & Espelage, 1995), which measures impulsivity and represents one variable; 5) the Control-Individual Protective Factors Index (CIPFI ) (Phillips & Springer, 1992), which measures self-control and represents one variable; 6) the Guilt and Shame Proneness Scale (GASP) (Cohen, Wolf, Panter & Insko, 2011), which measures guilt and represents five variables; 7) the Moral Foundations Questionnaire (MFQ30) (Graham, Nosek, Haidt, Iyer, Koleva, & Ditto, 2011), which measures morality and sub-aspects of morality, and represents six variables; and lastly 8) the Coping skills/minimisation strategy (Plutchik & Van Praag, 1989), which measures minimisation and represents one variable. The aforementioned scales account for 28 of the variables tested in this project. The background variables added nine more variables to the project, while the family and friend related variables resulted in 18 individual variables. Finally, for the SB and CB two measurement tools were utilised; the Bully Survey (Swearer & Carey, 2003; Swearer, Turner, Givens, & Pollack, 2008), which measures SB, and the Cyber-bullying and Online Aggression survey (Patchin & Hinduja, 2006; Hinduja & Patchin, 2009), which measures CB. The latter accounted for eight variables that were tested with inferential statistics, while for other related to the latter measurement tools aspects, only descriptive statistics were calculated (e.g. role switch, media use, anti-bullying education).

Finally, to develop the questionnaire five major criteria were taken into account: 1) validity; 2) reliability; 3) suitability; 4) accountability in relation to the conducted literature; and 4) length of the tool. All the above-mentioned aspects totaled in 63 variables that were tested in this study, and are explained individually in further detail below, in the sequence used for the web-survey.

**Background factors:** Participants were asked to state their status in terms of *age, gender, race/ethnicity, country of origin, religion, sexual orientation, disabilities, mental health, and physical health*, (see appendix C questions 8 to 16 and 37 to 39).

**Factors related to family and friends:** Participants were asked their perception, experience and memories in relation to *parent connectedness and communication, type or style of parenting, sibling connectedness and communication, sibling teasing, friendship quality, connectedness, and communication* (see questions 17 to 35 in appendix C).

**Factors related to participants' personality and behaviour:** To study the factors related to participants' personality and behaviour the following scales were used (it should be mentioned here that permission was granted by all developers that necessitated permission, before the scales were incorporated in the questionnaire):

**Empathy - MDEES:** Caruso and Mayer administered the 30 items scale in 1998 to 793 American adolescents and adults. The developers presented alpha reliabilities for all scale scores as moderate to high ( $\alpha = .88$ ,  $M = 3.63$ ,  $SD = .57$ ). The scale consists of six dimensions: *Suffering* (e.g., "The suffering of others deeply disturbs me"), *Positive Sharing* (e.g., "Seeing other people smile makes me smile"), *Responsive Crying* (e.g., "I don't cry easily"), *Emotional Attention* (e.g., "I don't give others' feelings much thought"), *Feel for Others* (e.g., "I feel other people's pain"), and *Emotional Contagion* (e.g., "When I'm with other people who are laughing I join in"). In order to reduce response bias and social desirability bias, six items were negatively worded and reversed scored. An example of one of the reversed scored items is "I rarely take notice when other people treat each other warmly." The empathy scale includes items dealing with positive emotional situations (e.g., "It makes me happy when I see people being nice to each other"), as well as

negative emotional situations (e.g., “It makes me mad to see someone treated unjustly”). Responses for each item are measured on a five-point scale (1 = “Strongly Disagree”; 5 = “Strongly Agree”), with higher scores indicating a greater level of emotional empathy. Others validated and used the scale (for example see Alloway, Copello, Loesch, Soares, Soares, Watkins, Ray, 2016) ( $\alpha = .88$ ,  $M = 3.64$ ,  $SD = .48$ ).

**Self-esteem – RSES:** The scale is a 10-item Likert scale with items answered on a four-point scale - from strongly agree to strongly disagree. The initial sample for which the scale was developed consisted of 5,024 high school juniors and seniors from 10 randomly selected schools in New York State. The scale is broadly used and validated by others (see Crandal, 1973). Five items indicate greater positive self-esteem (e.g., “*I feel that I have a number of good qualities*”), and five items indicate greater negative self-esteem (e.g., “*I certainly feel useless at times*”). Cronbach’s alphas in previous studies (Supple, Su, Plunkett, Peterson & Bush, 2013) vary from .79, .82, and .86, indicating relatively high reliability. Negatively worded items were reverse coded so that higher scores on this RSES sub-dimension would actually indicate lower negative self-esteem.

**Aggression:** The original sample consisted of 1,253 participants. The Aggression scale consists of four factors, *Physical Aggression* (PA, nine items), *Verbal Aggression* (VA, five items), *Anger* (A, seven items) and *Hostility* (H, eight items). The total score for Aggression is the sum of the factor scores. The scale uses five point Likert and participants chose accordingly to indicate how uncharacteristic or characteristic each of the statements is for them. The internal consistency of the four factors and the total score is as follows: Physical Aggression, .85; Verbal Aggression, .72; Anger, .83; and Hostility, .77 (total score = .89). The alpha for the total score indicated relatively high consistency. Moreover, the test-retest correlations

are as follows: Physical Aggression, .80, Verbal Aggression, .76, Anger, .72, and Hostility, .72 (total score = .80), suggesting adequate stability over time.

***Anger/subscale:*** As the Aggression Questionnaire included a subscale for anger with a relatively high reliability (.72), anger was measured only by using the subscale instead of including a separate scale for anger. The seven items related to anger focus on participants responses and reaction when are frustrated, provoked, controlling their temper, and how others perceive them in terms of anger and reactions due to anger.

***Impulsivity - ITCS:*** The scale is a four-item tool that measures the frequency of impulsive behaviours (e.g., lack of self-control, difficulty sitting still, trouble finishing things, etc.) on a five Likert point measurement. Its internal consistency is .62, which is reliable enough for such a short scale. Scores derive by summing across all responses. A range of four to 20 points is possible, with high scores indicating higher self-reported impulsivity.

***Self control – CIPFI:*** The self-control scale derives from the Individual Protective Factors Index and is a subscale with six items. The answers are scored on a four Likert point; the minimum score for the subscale is six and the maximum 24 ( $\alpha = .65$ ). The lower the total score the less self-controlled the individual.

***Guilt – GASP:*** The GASP measures individual differences in the propensity to experience guilt and shame across a range of personal transgressions. The GASP contains four four-item subscales: *Guilt-Negative-Behaviour-Evaluation* (Guilt-NBE), *Guilt-Repair*, *Shame-Negative-Self-Evaluation* (Shame-NSE), and *Shame-Withdraw*. The initial sample consisted 450 undergraduate participants from the USA. Participants are presented with scenarios and indicate the likelihood that they would respond in the way described (1 very unlikely, 2 unlikely, 3 slightly unlikely, 4 about

50% likely, 5 slightly likely, 6 likely, 7 very likely). The overall reliability of the scale is  $\alpha = .60$ ; despite not presenting high reliability, the scale is broadly used as researchers have the opportunity to utilise the subscales separately while also providing a general total score (Wolf, Cohen, Panter & Insko, 2010).

**Morality - MFQ30:** The Moral Foundations Questionnaire was developed on the basis that there is a need for a scale broader than the conventional morality scales. In addition, the developers took into account the fact that when it comes to measuring moral concerns, there is a disagreement about what morality actually means and what it entails. The developers' goal was to expand the range of phenomena studied in moral psychology so that it matches the full range of moral concerns, including those found in non-Western cultures, in religious practices, and among political conservatives (Graham et al., 2011).

The MFQ30 is a measure of the degree to which people endorse each of five intuitive systems posited by the Moral Foundations Theory (MFT) (Graham, et al., 2011): *Harm/Care, Fairness/Reciprocity, In-group/Loyalty, Authority/Respect, and Purity/Sanctity* (Haidt & Graham, 2007; Shweder, Much, Mahapatra, & Park, 1997; Haidt, 2013). Fairness and Care focus on the individual; Loyalty and Authority comprise the binding moral foundations; and lastly Purity has been linked with religious attendance (Bulbulia, Osborne & Sibley, 2013). The questionnaire consists of 32 items out of which two are catch questions to test participants' attention to the questions.

Graham et al., (2011) used a sample of 34,476 adults (37% women; mean age 36.2 years) who had previously registered at YourMorals.org and selected to take the MFQ. According to the developers, Cronbach's  $\alpha$  ( $\alpha = .73$ ) indicated a reasonable internal consistency, given that the developers' goal was to device an extensive range

of moral concerns with a small number of items across two different item formats (Graham et al., 2011). Mean scores of the average politically American are for Harm = 20.2, for Fairness = 20.5, for In-group = 16, for Authority = 16.5, for Purity = 12.6 (“Moral Foundations”, 2016). The developers further tested the scale for test-retest reliability with 123 college students who completed the questionnaire twice, with an average interval of 37.4 days (range 28 – 43 days). Results from Test–retest Pearson correlations for each foundation score were  $r = .71$  for Harm,  $\alpha = .69$ ,  $r = .68$  for Fairness,  $\alpha = .65$ ,  $r = .69$  for In-group,  $\alpha = .71$ ,  $r = .71$  for Authority,  $\alpha = .74$ , and  $r = .82$  for Purity,  $\alpha = .84$ , (all  $p < .001$ ). Indicating that the item responses are quite stable over time (Graham et al., 2011).

**Minimisation:** The Minimisation scale is a 10-item tool that measures minimisation as a coping strategy, with internal consistency of .67. Point values of zero or one are given to each statement. Responses are summed for a total score, with possible scores ranging from 0 to 10. A higher score indicates a high use of minimisation as a coping strategy. A lower score indicates less frequent use of minimisation.

**School-bullying:** The Bully Survey is a multi-part measure assessing experiences with bullying victimisation, perpetration, witnessing, and attitudes toward bullying (Cronbach’s alpha: Physical bullying = 0.79 Verbal bullying = 0.85). The survey includes four parts; (A) When you were bullied by others, (B) When you saw other students getting bullied, (C) When you were a bully, and (D) Your thoughts about bullying. However, for the purposes of this study only part A and part C were used. The survey defines bullying as:

*“Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying*

*happens over and over*" (cited in Hamburger, Basile, Vivolo, 2011, p. 69).

Examples include the following: Punching, shoving and other acts that hurt people physically; Spreading bad rumours about other people; Keeping certain people out of a group; Teasing people in a mean way; And getting certain people to gang up on others.

Both SB victimisation and SB perpetration were measured in terms of occurrence, meaning have you ever been victimised/perpetrated (yes, sort of, no), and in terms of intensity. In terms of SB victimisation only, participants were asked a series of questions from the BYS-S Part A, combined with additional questions to cover the sections studied in this project (see appendix C questions 178 to 189). To measure SB Perpetration participants were asked a series of questions from the BYS-S Part C, combined with additional questions to cover the sections studied in this thesis (see appendix C questions 192 to 201).

SB victimisation intensity was measured by giving a point for each way that participants selected and summing up items from 2a to 2k in part A, and perpetration was measured by summing up items from 2a to 2k in part C; the higher the result, the higher the SB related experiences/intensity. The author followed the same process as in BYS-S. The ways that were adopted from the BYS-S were: 1. Called me names; 2. Made fun of me; 3. Said they will do bad things to me; 4. Played jokes on me; 5. Won't let me be a part of their group; 6. Broke my things; 7. Attacked me; 8. Nobody would talk to me; 9. Wrote bad things about me; 10. Said mean things about me behind my back; 11. Pushed or shoved me; and 12. Other. From these categories 1, 2, and 3 were categorised as Verbal SB; 4, 6, 7, and 11 were categorised as Physical SB; 5, and 8 were categorised as Exclusion SB; and 9, and 10 were categorised as Spreading Rumours SB; other means of victimisation were incorporated into the

above categories (e.g. verbal for swore at my family, or physical for spat on me). Participants were asked to tick all the ways that applied to them and one point was given for each category from the 12 options excluding other as these were incorporated into the subcategories. Therefore, the minimum score for this scale would be zero for no victimisation and 11 for maximum victimisation as victims would have suffered all primary victimisation means from the list. The same process was followed for SB perpetration intensity measurement, with the only difference being the paraphrasing of the items in order to represent perpetration (e.g. instead of called me names, it would be “I called them names”).

The Bully survey focused on a particular school year, while the present study looked into bullying as an experience in general; therefore, various items were excluded in order to fit the purposes of this study. For example, the Bully survey required an answer on where in the school premises participants were bullied, which has been excluded from this study. In addition some questions that addressed teacher awareness were excluded, as for the purpose of the present study a different section was built at the end of the questionnaire that focused on anti-bullying education at school, adding parents’ awareness and anti-bullying education at home therefore repetition was prevented. Moreover, participants were asked if they ever expressed their feelings to the bully and what were the results of this action if it occurred. Bullies were also asked if their victims had ever expressed their feelings to them and what were the results of that act.

***SB Role Switch:*** The bully-victim category was explored by testing the independence between victimisation (have you ever been school bullied) and perpetration (have you ever school bullied) (see appendix C). While also explored for possible associations between intensity of SB victimisation and SB perpetration.

**Cyber-bullying:** CB experiences were measured with a combination of questions (see Appendix C), developed for the purpose of this study, along with some adopted items from the Cyber-bullying and Online Aggression survey; which is a 52-item measure with two subscales to measure CB victimisation and perpetration, adding a section that examines bystander experiences (Cronbach's alpha: Victimization scale = 0.74 Offending scale = 0.76) (Patchin & Hinduja, 2006; Hinduja & Patchin, 2009). For the purpose of this study bystander experiences were excluded from the survey. The tool defines CB as:

*“Cyber-bullying is when someone repeatedly makes fun of another person online or repeatedly picks on another person through email or text message or when someone posts something online about another person that they don’t like”* (cited in Hamburger, Basile, Vivolo, 2011, p. 80).

To measure CB victimisation and the related independent variables/potential factors a combination of questions (see appendix C questions 231-251) was used. However, it should be mentioned, that CB was measured in terms of occurrence (see questions 231 in appendix) and in terms of intensity (see questions in appendix C 236-244 in the appendix), as in the case of SB. Points were granted to questions from 6a to 6i. The same process was used to examine CB perpetration. That being a combination of developed questions that addressed CB experiences, frequency rates and other aspects, such as CB perpetration occurrence (Yes, Sort of, No) and of course intensity that was measured according to Patchin and Hinduja (2006) and Hinduja and Patchin (2009) (see appendix C questions 214 – 230, out of which 219 – 223 measured CB perpetration intensity). Points were granted to questions from 6a to 6e (see appendix C questions 219-223). The developers of the survey (Patchin & Hinduja, 2006; Hinduja & Patchin, 2009) scored the items as follows: Never = 0,

Once or twice = 1, A few times = 2, Many times=3, Every day = 4. The same process was followed in this study and the overall score for victimisation resulted from the sum of the relevant items, and likewise for perpetration. The developers had also taken into account more items for victimisation than for perpetration.

***CB Role Switch:*** To test the role switch between CB victim and CB perpetrator participants were directly asked whether they have CB perpetrated after being CB victimised and the opposite (see appendix C questions 252-255).

***Media Use:*** Questions 204-213 (see appendix C) were developed in order to address how and if the Internet and social media access, frequency of access, online violence exposure, parental monitoring when online, onset of the Internet and social media use, types of social media, and reasons of social media use, are related to CB involvement.

***Anti-bullying Education:*** To explore participants' anti-bullying education and perceptions on anti-bullying education, participants were asked a set of questions (see questions 256 – 270 in appendix C). To explore participants' opinion and experience with aspects of RJ victims were asked if they had ever expressed their feelings to the perpetrator, whilst perpetrators were asked if victims had ever expressed their feelings to the first; both parties were asked of the results of such engagement (see questions 190, 191, 202, 203, in appendix C). The RJ questions were included only in the SB part of questionnaire, based on the assumption that RJ cannot be easily used with CB since there would be no authority figure to mediate such discussion online. However, if the CB incident occurs at school, or between students of the same school, then it is possible that RJ could be used; therefore, this aspect needs further exploration by future research.

### **1.10.3. Procedure and Environment**

Participants completed the questionnaire (see Appendix C) online via a link to Google Forms. The link was active for approximately one year with average completion time one hour and 30 minutes. Participants were recruited from Huddersfield University's sample pool, via Facebook advertisement, Twitter advertisement, email dissemination, and through personal contact of acquaintances, friends and connections with other schools and universities.

***Utilising the Web-Survey.*** For this study a web-survey was preferred for data collection for three main reasons. 1) The web-survey allowed participants to complete the questionnaire at their own convenience, in terms of completion pace and time of the day. That way, more participants were secured, as there was no time pressure, and all the limitations (Lavrakas, 2008) that come with setting up meetings to complete the questionnaire were avoided. 2). Anonymity was another major factor that led to this decision. By completing the questionnaire online, participants did not have to worry about their anonymity being compromised, as there was no interaction with the researcher. It was taken into account prior to this decision that, participants who complete questionnaires in a group, or are interviewed face-to-face, frequently become concerned. Concerned that their responses could be matched with their identity and become exposed to the researchers, the other participants, individuals that could be related to the organisation where participants were recruited, and even the public. In addition, fear of being exposed could compromise the data collection process, as participants could be reserved in terms of answering the questions truthfully. As Price (1996:207) strongly supports, it is better to 'compromise the research rather than compromise the participants'. 3). The third reason was mainly for securing a large number of participants. Prior to data collection, there was a debate on whether participants should have been recruited directly from schools or the web. It

was decided that recruiting participants from schools only, would limit the sample in terms of number and age. The aim for this particular study was to also include participants over the age of 16, which is the maximum typical age for secondary school students. It should be noted that the web-survey did not exclude school-aged students, on the contrary, there was established communication with various educational organisations and the link to the survey had been disseminated with these organisations, which in turn disseminated to their students. In addition, the study looked both on SB and CB; according to the American Educational Research Association (2013), SB and CB are also documented at a later age, during college and university studies, areas that have been neglected (Myers & Cowie, 2017) and as mentioned earlier, the current study aimed to explore further. Moreover, it should be mentioned that a web-survey is a valuable and valid mean for collecting data fast, it is of low cost, it is more inclusive in comparison to other means, such as face-face interviews, data can be carried from the collection platform to the analysis tool directly, and the researcher can interact with the data at any phase and monitor the responses (Wyatt, 2000).

#### ***Challenges Faced During Questionnaire and the Survey Development.***

There were challenges throughout the survey development and the implementation phase worth reporting. Starting with identifying suitable and valid scales that were also as short as possible. With nine factors being explored in relation to SB and CB, adding the family and friend related factors, plus the SB and CB measurement tools, as well as the demographic questions, the survey was originally “too lengthy and tiring” as reported by pilot participants. For that reason, the survey was modified three times, scales were replaced, and aspects such as bystander examination for SB and CB were excluded. The alterations resulted in the shortest and final version, but

without compromising the validity of the study as the replacements were equally valid as the initial selections. Additionally, consistency had to be ensured, which proved to be a time consuming and exhausting process. For example, as the study looked both into victimisation and perpetration, it had to be certified that the questions addressing victimisation experiences were also included for perpetration experiences. The latter consideration led to one year of survey alterations, pilot testing, time consuming proofreading and restructuring of the survey sections, in order for the final version to be released with the minimum possibility of inconsistencies affecting the data collection process and the results. However, despite the exhausting examination of the survey prior to its release, the pilot testing and the validation by having a second researcher (supervisor) examining the questions, mistakes were discovered during the survey implementation process, which are detailed in the limitations section in chapter 18. An example is the inconsistency in the response levels between SB victimisation and perpetration, where victimisation occurrence was measured with a “yes and no” response option, whereas perpetration also included the “sort of” category. Nonetheless, the discovered inconstancies did not affect the analysis. While in addition, such limitations are expected when utilising a questionnaire (Wyatt, 2000). Important is also to mention that the development of the survey proved to be challenging, particularly in terms of time consumption and choosing the appropriate dissemination means as well as the platform. As mentioned earlier, Google Forms was chosen for data collecting, which was a conscious and well examined decision. This was after participants from the pilot phase reported that, amongst the two platform options, those being Qualtrics and Google Forms, the latter seemed less tiring, more motivational and had better effects. Despite both platforms being set up consistently, the opinion of the pilot participants was taken into account and Google

Forms was preferred. Although, the choice might have ensured a larger number of participants and less incomplete responses, nonetheless, there were limitations that are further discussed in the limitation section in chapter 18; however, these limitations did not affect the results, but proved the data coding process more time consuming as Google Forms collects data only in Excel and not in SPSS.

***Implementation of the Survey.*** Finally, in terms of implementing the survey, the process was simple as the platform allowed for the link to the survey to be shared automatically in Facebook, email addresses, Twitter, Research Gate, SONA, texts, WhatsApp and other social media platforms. From that point onwards, the role of the researchers was only to monitor the responses. During this phase there were some difficulties experienced. For example, some participants could not complete the survey as Google Forms would drop unexpectedly and there was no save option, allowing for re-entering the semi-completed survey at a later time and concluding it. It is likely that this technical limitation cost numbers in terms of sample size, although the possible number remains unknown. Other participants commented that some questions were set up to be forced response, which in their case the question did not apply to their experiences. However, such limitations were easily fixed as Google Forms allows for modification of the survey at any stage. Regardless, the modifications were carefully selected in order to ensure reliability/validity/consistency of data; therefore, the modifications were limited to altering force responses to non-forced responses and spelling mistakes that did not affect the aforementioned aspects. During this phase, the inconsistency with the victimisation occurrence levels was discovered, however, as many participants had already completed the questionnaire, it was decided not to alter the questions. Concluding, two limitations that accompany web-surveys are generality and validity

of responses (Wyatt, 2000). In terms of generality, web-surveys are restricted to participants that can use technology and have access to the Internet. For this particular study, generality was not a major limitation as most individuals in the Western world and particularly the UK and the EU countries, where the link was mostly disseminated, have access to technological devices such computers, and Internet access from a young age (ONS, 2018). On the other hand, validity of responses and the truthfulness of participants in responding to the questions could not be controlled. However, after data collection the responses were examined in detail and some completions were excluded due to obvious deceit. It was assumed that the particular participants were recruited from the SONA system of Huddersfield University and completed the survey with a sole motivation, the credits awarded for their time to complete the survey. The remaining completed questionnaires were considered as honest and valid responses; besides participants' valid responses is a limitation that accompanies not only web-surveys but also face-to-face interviews and similar data collection means (Parry & Crossley, 1950; Bale, 1979).

#### **1.10.4. Ethics**

The ethics board of the Psychology Department of Huddersfield University approved the study while BPS guidelines were followed throughout. The online survey included an information sheet, a consent form that informed of the right to withdraw from the study up to the point of data analysis, the survey, and a debrief sheet that included information about the purpose of the study and contact information of support teams. All identifying information was removed from the dataset immediately after data input and coding. There were no restrictions.

#### **1.10.5. Plan of Analysis**

The data resulting from the factors and SB/CB measurements were to be analysed with Pearson or Spearman correlation and Chi-Square of Independence testing for significant relationships. Differences were tested with Kruskal-Wallis test, and predictions with Binary, Multinomial and Linear regression models. Whilst, equal attention was paid to other related aspects that were examined only with descriptive statistics, allowing for a preliminary exploration that will be followed up with a subsequent longitudinal project.

#### **1.10.6. Conclusion**

In chapter one it is shown that bullying in general as a field and as a phenomenon is well studied but complicated; with literature often appearing inconsistent, whilst signifying an argument between authors, on whether CB is part of SB or a different stand-alone form of bullying. Despite the voluminous literature, the extensive focus on most aspects related to both forms, and the deep examination of the related risk and preventive factors, research gaps still exist and the opportunity for more research arises. The present study intensely examines well studied and neglected risk and preventive factors related to both forms, whilst attempting to clarify inconsistencies and to provide answers to unanswered questions, while focusing both on the victim and the perpetrator, starting with part two - chapter two, which addresses SB victimisation.

## **Part 2**

### **Focusing on School-Bullying**

#### ***Chapter 2- The SB Victim***

##### **2.1. Victims of SB**

Adolescence is a physically and mentally challenging developmental period (Tani, Greenman, Schneider & Fregoso, 2003; Kodžopeljić, Smederevac, Mitrović, Dinić & Čolović, 2014; 2013), let alone the vulnerability that youngsters face when they suffer peer victimisation (Vaillancourt, McDougall, Hymel, Krygsman, Miller, Stiver & Davis, 2008; Navarro, Larrañaga & Yubero, 2016,2015). Under hostile situations, victimised teens expect others to be aggressive and show a preference for avoiding social interaction (Ziv, Leibovich & Shechtman, 2013). It appears that this challenge begins with the transition from primary to secondary school, irrespective of the role they might have adopted during primary school; nonetheless, the role of the victim can alter status, whereas bullies tend to preserve their behaviour during this transition (Schäfer, Korn, Brodbeck, Wolke & Schulz, 2005).

Measuring bullying victimisation presents difficulties, as there are definitional inconsistencies, a variability in perceptions of what bullying is and a plethora of measurement tools (Griffin & Gross, 2004; Cuadrado Gordillo, 2011). For reasons as the latter, it was proposed (Theriot, Dulmus, Sowers & Johnson, 2005;

Frisén, Holmqvist & Oscarsson, 2008) that victimisation should be measured by taking into account both self-labelling victims and non-self-labelling. Nonetheless, even with the definitional inconsistencies it was shown that SB victims suffer mostly from verbal bullying, with females insisting on verbal harassment being a SB prerequisite, and males including the power imbalance when defining SB. It is therefore evident that the definitional criteria for SB victimisation differentiate between the genders and are affected by their individual perceptions.

## **2.2. Victim Characteristics**

Dan Olweus divided young individuals in terms of SB involvement into four classifications, those being: victims, bullies, bully-victims, and individuals that are not involved in bullying under any classification (Conners-Burrow, Johnson, Whiteside-Mansell, Mckelvey & Gargus, 2009). The first are children who are quiet, depressed, and might suffer from anxiety. They are found to be socially isolated and less accepted by their peers, while they often do not enjoy school (Conners-Burrow, et al., 2009), and frequently can be overweight (Roland, 1989; Olweus, 1991; Puhl & King, 2013). They seem to be less competent, with low self-esteem and score lower on intelligence tests (Beckman, et al., 2013). In comparison to non-victims, they are more cautious, sensitive, passive, and consider themselves unattractive (Stephenson & Smith, 1989; Nishina, Juvonen & Witkow, 2005).

Various other projects have studied victims' characteristics; some studies (Rech, Halpern, Tedesco & Santos, 2013) concluded that dissatisfaction with body image and sedentary habits are related to victimisation. Others (Smith, Talamelli, Cowie, Naylor & Chauhan, 2004) supported that victims liked other peers and socialising, but have fewer friends in school, and have been previously victimised (Mishna, Khoury-Kassabri, Gadalla & Daciuk, 2012). At school, victims are usually

alone and they might not belong to any social network (Nansel et al., 2001). While when victims choose their friends, these turn out to be lonely students as well and non-aggressive. Moreover, victimised children tend to have overprotective and sheltering parents that may contribute to their children's victimisation (Olweus, 1993); probably because they have not been previously taught how to deal with conflict (Felipe, García, Babarro & Arias, 2011). Others (Ma, 2002) added poor disciplinary climate, having good academic status, as well as having poor affective and physical conditions. Finally, CB victims that are discussed in chapter 10, share traits with SB victims, but in addition they are more prone to Internet risk behaviours and quite often they are also SB victimised by the same individual who abuses them in cyber space (Chang, et al., 2013).

### **2.3. Reasons of Victimisation**

Connolly and Beaver (2014) used data from the National Longitudinal Survey of Youth 1997 and found that both genetic and environmental factors are associated with a tendency for victimisation. Others (Seeds, Harkness & Quilty, 2010) identified parent maltreatment as a reason, while Thomas, Chan, Scott, Connor, Kelly and Williams (2016; 2015;) recognised higher levels of psychological distress and reduced levels of emotional wellbeing as reasons that may lead to victimisation. Whereas, Van Noorden, Tirza Bukowski, Haselager, Lansu and Cillessen (2016) reported that affective empathy is a main central reason for victims attracting perpetrators into bullying them.

There are also more specific victims' characteristics that could lead to victimisation, such as belonging to minorities in terms of race and sexual orientation (Mueller, James, Abrutyn & Levin, 2015), as well as mental health difficulties (Mayes, Calhoun, Baweja & Mahr, 2015). Moreover, it was established (Lehman,

2014; Craig, 1998; Carbone-Lopez, Esbensen & Brick, 2010; Thornberg, Rosenqvist, Johansson, 2012) that male students are more likely to be SB victimised than female students. To further explore why victims are victimised, Frisén, et al. (2008) divided the reasons into eight categories that might play a role into SB victimisation. These categories were:

- (1) Victims' appearance, for example: ugly, fat, small, wears braces or look different.
- (2) Victims' behaviour, for example: strange, different or ridiculous behaviour, are provocative or rude in some way, dare to be themselves.
- (3) Victims' clothes, for example: wears ugly clothes or the wrong clothes, have an ugly haircut or wear glasses that are out of fashion.
- (4) Victims are deviant in ways that are not explained, for example: stand out from the crowd, are simply wrong or different from their peers.
- (5) Victims are lonely or socially insecure, for example: do not dare to speak their mind, are easily affected, lonely or do not have many friends.
- (6) Victims' background, for example: come from a different country, parents' occupations are unusual or they have low socio-economic status.
- (7) Bullies' personality, background or motives, for example: the bullies want to feel tough or cool, have low self-confidence, are sad or carrying anger inside which they need to vent, they bully to avoid being bullied themselves.
- (8) Other reasons: this category includes answers that did not fit into any of the seven categories above, for example: peer influence, do not do well at school, victims are functionally impaired or have an awkward name.

The results from this study showed that the most frequent reason of SB victimisation is that victims have a deviant appearance (39%), the bully's personality, background and motives (36%), victims being lonely and socially insecure (13 to

8%), and 22% of the girls and 15% of the boys reported victims' clothes as a cause of SB victimisation.

## **2.4. Frequency of Victimisation**

The study of bullying behaviour and its consequences for young people depends on valid and reliable SB measurement (Shaw, Dooley, Cross, Zubrick & Waters, 2013; Napoletano, Elgar, Saul, Dirks, & Craig, 2016); but as it has and will be stressed out repeatedly in this thesis, there are definitional inconsistencies related to bullying. Therefore, the reported victimisation rates vary, perhaps due to cultural variations but also the definitional inconsistencies.

Nonetheless, some authors (Fink, Deighton, Humphrey & Wolpert, 2015) reported that children with special educational needs (SEN) are more likely to experience more frequent victimisation at school. McNicholas and Orpinas (2016) who also used students with disabilities ( $N = 161$  college students) in their study to explore the prevalence rates, reported that the majority of participants (69%) experienced victimisation during middle and high school, with relational bullying being the most common type of victimisation (63%), followed by verbal (38%), cyber (24%), and physical (18%). Likewise, Frisén, et al. (2008) reported that in their study 5.4% of the girls and 5.6% of the boys had been bullied at least once a week. On the contrary, Baly, Cornell and Lovegrove (2014) indicated rates of approximately 61% of less peer-reported victimisation than self-reported victimisation in sixth grade, 62% less in seventh grade, and 68% less in eighth grade. It appears that peer report and self-report of victimisation play a major role in the recorded and perceived frequency of SB victimisation (Kljakovic & Hunt, 2016). Regardless, the established conclusion from this section is that victimisation rates and frequency of events vary broadly.

## **2.5. Types of Victimisation**

As SB victimisation has been a persistent problem at schools, affecting up to 70% of the student body (Elias & Zinsd, 2003), research has focused deeply in the types of SB (Goldweber, Waasdorp & Bradshaw, 2013). However, some studies make distinctions and study the prevalence rates of the various SB types according to gender. For example, McClanahan, McCoy Jacobsen (2015) used data from more than 25,000 middle-school students in 15 countries in Latin America and the Caribbean who participated in the Global School- based Student Health Survey (GSHS) between 2004 and 2009. They concluded that for girls the most common form of victimisation reported in 14 countries was appearance-based, while for boys physical aggression was the most common form in 10 countries and appearance-based was the most common form reported in four countries. Other frequent SB types include name-calling (Boulton & Hawker, 1997), which falls under verbal SB. Similar reported types are relational, physical and CB, with some of these types overlapping (Bradshaw, Waasdorp & Johnson, 2015;2014;). Finally, in terms of frequency and types Wang, Iannotti and Nansel (2009) showed that prevalence rates of having been bullied at school for at least once in a two months period were 53.6% verbally, 51.4% socially, 20.8% physically, and 13.6% electronically.

## **2.6. Parents' Awareness of SB Victimisation**

Various projects (Brown, Aalsma & Ott, 2013; Sawyer, Mishna, Pepler & Wiener, 2011) considered parents' awareness not only as a factor for SB victimisation but also as a factor for bullying in general. For example, a systematic review conducted by Harcourt, Jasperse and Green (2014) identified 13 studies, which qualitatively explored bullying from parents' perspectives. The studies suggested that parents struggled to clearly define and identify bullying; failing to include the criteria

set by Olweus in terms of repetition and imbalance of power. Another finding suggested that SB is frequently reported as teasing, which complicates perceptions of the definition and thus parents may frequently miss the fact that their children may be victimised. As a result, this definitional inconsistency may account for lack of parental awareness in terms of victimisation, reported rates, and even perceptions that SB is normal. It was also noted that parents frequently place the responsibility to the schools, and some schools believe that it is the families that should take action and tackle bullying. As a result, apart from the definitional inconsistencies, it seems that the “who to blame” plays a major role when attempting to successfully intervene when bullying occurs.

In terms of parents’ awareness and rates, studies (Holt, Kaufman & Finkelhor, 2009) have shown that the majority of parents (88%) believe that teasing hurts kids, but also showed (81%) that schools should pay more attention to bullying. Moreover, the majority of parents (88%) believe that their children are safe at school, while 37% support that teachers and school staff should deal with SB victimisation without parental interference, although once again the majority (82%) gives permission for those involved in SB to be strongly punished. On the other hand 37% stated that those that are victimised should fight back, 30% supported that victims must stay away from bullies but 80% believe that victims should stand up for themselves; perhaps suggesting resilience but without the appropriate guidance.

Finally, Holt et al. (2009) informed that 86% of victims told someone about it and 61% told their parents. From the victims 79% received advice from their parents, 45% were told to fight back, 45% were taken to the principal for further discussion on the incident(s), 10% were taken for psychological support, 44% were given ideas of how to avoid victimisation and only 27% were told not to hit back. The same study

indicated that students' perception of victimisation differentiate from parents' perceptions, as 59% of the young children reported victimisation, when parents reported less (41%). Consequently, informing that parents are not always aware of their children's victimisation.

## **2.7. Bullying at Home**

Starting with sibling aggression, which is a common form of intra-familial aggression, and has been neglected by research, Tippett and Wolke (2015) informed that peer aggression and peer bullying is linked to sibling bullying, and increases the odds of becoming victimised by peers at school. The findings can be explained, since children behave the way they are taught and that starts from the family and house environment. In addition, the power imbalance is often shown between siblings, as it is the oldest of the siblings that tease if not to say bully the younger and perhaps the weaker siblings. However, it appears that parental involvement only moderately affects this relationship, while in addition physical and emotional violence in the home are significantly associated with SB victimisation (Lucas, Jernbro, Tindberg & Janson, 2016;2015;). Others (Georgiou & Stavrinides, 2013) stressed out that parent-child conflict at home is a strong predictor for SB victimisation, while relationships with family are key sources of both support and stress during school years (Murray-Harvey & Slee, 2010).

Moreover, Cluver, Bowes and Gardner (2010) clearly stated that risk factors for being victimised include being a victim of physical or sexual abuse or domestic violence at home, and/or living in a high-violence community. While, Hemphill, Tollit, Kotevski and Heerde (2015) who compared the individual, peer, family, and school risk and protective factors for both SB and CB victimisation, agreed with previous research that indicated family conflict as a predictor for SB, and further

advised that parents may involuntarily be placing their children at risk for being victimised. However, it is not necessary for parents to create conflict (Baldry & Farrington, 2005) or abuse their children in order to put them in danger of victimisation. Family teasing about appearance has been indicated by previous research as an influential risk factor, particularly for victims (Jankauskiene, Kardelis, Sukys & Kardeliene, 2008). While others (Sapouna & Wolke, 2013) reported that children who are not victimised by their siblings are less at risk for being victimised by peers at school or in the community. Children that are being teased frequently by family members about their appearance, such as body weight, style, choice of clothes, and maybe distinct features (e.g. teeth, hair, height, speech, facial characteristics etc.) tend to have lower self-esteem, which has been indicated as a risk factor for victims and is further discussed later on. To the possible question, why not all children that are being teased by family do not become victims of bullies, perhaps the answer is the individual coping skills.

## **2.8. What Stops SB**

This question has been researched in every possible way that anyone can imagine, nonetheless, the absolute answer and solution is yet to come. Despite this, various projects (Frisén & Holmqvist, 2010) examined adolescents' perspectives on what interventions they consider to be effective in order to stop victimisation, and concluded that some anti-bullying strategies are more effective and some less, whereas adolescents' suggestions differ as a function of age, sex and current experience of victimisation. Some participants suggested parental involvement, and ways to increase the perpetrator's empathy. Another suggestion by younger individuals was improvement of victims' coping strategies, while older participants placed the responsibility directly on the actions of school staff. A common finding

however, across the age group of victims was that victims do not suggest discussion with the bully.

A similar study (Camodeca & Goossens, 2005) utilised a questionnaire with 311 children and it seemed that victims were in favour of strategies aimed at solving the conflict through calmness, with girls preferring assertive strategies more often than boys, and younger children preferring calmness more often than older children, who showed a preference for retaliation. Regarding retaliation, some victims also supported that it can have positive results in terms of stopping victimisation, which could suggest frustration, anger and perhaps the wrong perception of victims being helpless or introverted. However, when victimisation is repeated, it becomes increasingly difficult for victims to find the will, means and strength to stop it. As a result, some victims have shown meaning and appreciation for public education campaigns and information about bullying. Nonetheless, not all victims use means to stop victimisation; some victims do absolutely nothing or avoid facing the issue, therefore, endure the suffering, hoping that one day the harassment will come to an end. In general, female victims find that talking to someone is a helpful way to stop victimisation while male victims are supporters of confrontation and retaliation. It must be mentioned that the SB coping strategies suggested by the male, showed a tendency for failure and often resulted in the exact opposite outcome (Craig, Pepler & Blais, 2007).

Standing on the female views of how to successfully stop SB victimisation, research (Black, Weinles & Washington, 2010) found that only 44% out of 2,615 participants told someone about their victimisation as an attempt to find the solution. On the other hand, using counter-aggression/fighting back measures was the most common (75%) way, followed by making a safety plan (74%), and lastly ignoring the

victimisation (52%). However, fighting back has consequences; for example increase of likelihood of injury, more aggression from the perpetrator, escalation of attack means (e.g. weapons), and of course possibility of being punished by the school. Finally, Frisén, Hasselblad and Holmqvist (2012) informed that although victims reporting the incidents to school staff, was the most preferred and successful mean to stop the victimisation, frequently the actual reason of victimisation ending was the perpetrator's or victim's departure from that particular school.

## **2.9. Do Victims Protect Other SB Victims**

SB victimisation has been researched from various sides and approaches; especially regarding the way such experiences affect the person during their later life. One side that has been neglected is the way that ex or current victims act when they see someone else being victimised. The general notion however, is that even if ex victims want to help other victims to escape from their victimisation, such results are not successful without teachers' or adults' interference (Porter & Smith-Adcock, 2011), and without training and education on how to be proactively support their peers (Holt & Espelage, 2007). However, Holt and Espelage (2007) informed that, in general students that are not involved in SB victimisation and/or perpetration find greater support than those that are involved in SB either as a victim or as a perpetrator. To our knowledge, the question addressed in this section has not been explored in depth. Therefore, finding answers will provide important information about the way SB victimisation experiences affect the victim, in terms of potential increase or decrease of empathy or even the exact opposite, which would be increased levels of aggression that would in turn lead to victims becoming perpetrators.

## **2.10. Reasons that Victims Protect Other Victims**

If literature is limited on whether ex victims help other victims, then this

section that refers to the reasons that an ex victim might help another victim escape victimisation proved to be even more limited. Nonetheless, research (Huizing, Veenstra, Sainio & Salmivalli, 2012) showed that victims show higher levels of depression in classrooms that other victims exist; however, victims also adjust better in classrooms that victimisation levels are higher. Perhaps in such classrooms victims feel that others share the same experiences and thus understand them, and by sharing their victimisation experience, they become more extroverted and engage in peer socialisation. The same authors also indicated that classrooms with more victims show higher levels of depression and lower levels of self-esteem; that might be because victimisation does not affect only the victim but the social network the victim is in; as victimisation creates a general negative climate for all students. Self-esteem might be lower because peers might feel incapable of helping or changing the environment and making the bullying stop, or they might feel guilty for not trying to help the victim. Even if these peers want to help victims, still this intervention may prove unsuccessful without the appropriate training (Bergelson, 2013).

In addition, Dowling and Carey (2013) suggested that victims perceive informal sources of help to be easier to talk to about victimisation. The same study found that common reasons for talking to someone about the victimisation, includes getting back at the bully, feeling better and stopping the bullying. Therefore, it is assumed that ex victims help other victims, because they want to stop SB, feel better, or perhaps find a way to get revenge.

## **2.11. SB Victimisation Related Hypotheses**

Taking previous literature into account, it was expected that:

1. Parents' awareness of SB victimisation has an impact on the victimisation.
2. Victimization at home, even in the form of innocent teasing, is related to SB

victimisation.

## 2.12. Results

**Descriptive Statistics:** From the 408 participants that completed the survey 246, (60.7%) reported that they had been SB victimised at some point in their life and 102 (39.7%) reported one or more times a week, 93 (36.2%) at least one or more times a month and 62 (24.1%) at least one or more times a day. The frequencies for the victimisation means are reported in Table 2.12.1 below.

Table 2.12.1. *Frequencies of reported SB victimisation means.*

Means of SB victimisation	Reported frequencies
Were called names	205 (82%)
Were made fun of	205 (82%)
Perpetrators said bad things about them behind their back	187 (74.8%)
Were excluded from groups	127 (50.8%)
Perpetrators played jokes on them	99 (39.6%)
Nobody would talk to them	88 (35.2%)
Perpetrators wrote bad things about them	83 (33.2%)
Were pushed or shoved	82 (32.8%)
Were threatened, such as bullies would do bad things to them	68 (27.2%)
Perpetrators physically attacked them	55 (22%)
Perpetrators broke their things	40 (16%)
Spat on, choked, set up a fight with them, spread rumours, stole property, laughed at their illness, made fun of their family members and one participant even reported that the bully had pushed his grandmother down the school stairs.	11 (4.4%)

The maximum of the SB victimisation intensity was 11 points, the minimum zero with a variance of 9.6 ( $M = 2.9$ ,  $SD = 3.1$ ).

Participants were also asked who bullied them the most. See Table 2.12.2 below for details.

Table 2.12.2. *Who SB victimised you the most.*

Who victimised you the most	Frequencies
Girls in their grade	179 (71.9%)
Boys in their grade	124 (49.8%)
Someone popular	121 (48.6%)
Someone with many friends	100 (40.2%)
Older boys	52 (20.9%)
Older girls	48 (17.7%)
Someone they didn't know	44 (17.7%)
Someone strong	34 (13.7%)

Someone powerful	28 (11.2%)
An adult	20 (8%)
And others included younger boys, younger girls, someone who is smart, previous friends, brother, perceived friends	<2%

Next, participants were asked the perceived reasons they were victimised and their responses are presented in Table 2.12.3 below.

Table 2.12.3. *Perceived reasons of SB victimisation.*

Perceived reasons of SB victimisation	Frequencies
I am fat	86 (35%)
I am different	74 (30.1%)
They think my face looks funny	73 (29.7%)
The clothes I wear	62 (25.2%)
I get good grades	61 (24.8%)
They think I am a wimp	60 (24.4%)
I cry a lot	34 (13.8%)
They think my friends are weird	33 (13.4%)
My family is poor	29 (11.8%)
The colour of my skin	22 (8.9%)
I can't get along with other people	21 (8.5%)
Other reasons included: they think I am too old or too young, my religion, the church I go to, my family members, the country I am from, I get sick a lot, I get bad grades, I am disabled, I am too tall, I go to special education, the way I walk, I am gay, without a reason, jealousy, I am too quiet, I don't know, I stuck up for people when they were picked on, my hair colour, my name, for being shy, ex boyfriends, ex friends, nothing better to do, braces, my epilepsy	<2%

Moreover, 135 of participants (54%) reported that their parents were aware of the victimisation, 77 (30.8%) said No and 38 (15.2%) did not know if their parents knew about the victimisation. When participants were asked if they could defend themselves against their tormentor 103 (41.2%) of participants reported that they were Sort of able to defend themselves, 79 (31.6%) said Yes, and 68 (27.2%) said No. Participants were also asked if they had been bullied at home and by whom, the responses are shown in Table 2.12.4 below:

Table 2.12.4. *Who victimised you at home.*

Who victimised you at home	Frequencies
No one	177 (71.1%)
Father	22 (8.8%)
Brother	19 (7.6%)
Sister	18 (7.2%)
Mother	13 (5.2%)
Relative	16 (6.4%)
Grandparent	7 (2.8%)
Friend	7 (2.8%)

Neighbour	6 (2.4%)
Stepfather	6 (2.4%)
Stepmother	5 (2%)
And other responses included flatmates, mother's boyfriend, and even the property's manager.	<2%

Participants were also asked how did the victimisation stopped if they were not bullied anymore and the responses are presented in Table 2.12.5 below:

Table 2.12.5. *How did the SB victimisation stop.*

How did the victimisation stop	Frequencies
When I left school	103 (41.4%)
I stood up to my bullies	91 (36.5%)
They left me alone without any reason	56 (22.5%)
My parents intervened	46 (18.5%)
My teachers intervened	42 (16.9%)
I changed the reason that caused the bullying (e.g. lost weight)	28 (11.2%)
The bullies were punished by the school	21 (8.4%)
My friends intervened	20 (8%)
I changed schools	18 (7.2%)
The authorities intervened	7 (2.8%)
Other reasons included: we grew up, never stopped, the union intervened, I started ignoring the bullies, and other family members intervened	<2%

When participants were asked if they had ever tried to protect another victim 156 (62.7%) reported Yes, 68 (27.3%) said No, and 25 (10%) said Sort of.

Participants were then asked to report the reasons of their attempt to protect another victim and the responses are presented below in Table 2.12.6:

Table 2.12.6. *Why SB victims attempted to protect other SB victims from being victimised.*

Why SB victims attempted to protect other SB victims from being victimised.	Frequencies
Bullying is not right	141 (78.3%)
I felt sorry for the other victim	124 (68.9%)
I didn't want the other victim to suffer as I did	115 (63.9%)
I wished someone had done the same for me when I was bullied	108 (60%)
The other victim was my friend	74 (41.1%)
The reason the other victim was bullied was wrong	72 (40%)
The other victim was my family	46 (25.6%)
The other victim was younger than the bully	21 (11.7%)
It was a decision of the moment	18 (10%)
I felt guilty because I had bullied that person in the past	2 (1.1%)
The other victim had special education needs	1 (0.6%)
The other victim was being bullied because racism	1 (0.6%)

Moreover, participants that intervened when they saw another victim being bullied were asked if the intervention was successful and the responses were that 92 (50%) succeeded in stopping others' victimisation by interfering, 85 (46.2%) reported Sort of, 6 (3.3%) said No, and only one (0.5%) said that it made things worse.

**Inferential Statistics:** Lastly, for this section two relationships were tested, those being SB victimisation occurrence and parents' awareness of victimisation, and SB victimisation occurrence and victimisation at home. Assumptions were taken into consideration and Fisher's exact test was reported were appropriate (see McHugh, 2013). The results of the Chi-Square test were significant ( $\chi^2(3) = 17.83, p = .001$ , Fisher's two tailed exact test = 497.27,  $p < .001$ ), suggesting that parents' awareness of SB victimisation and SB victimisation occurrence are not independent of one another. Likewise, victimisation at home and SB victimisation occurrence are related to one another ( $\chi^2(1) = 44.28, p < .001$ ). Consequently, both hypotheses were accurate.

### **2.13. Chapter 2 Discussion**

In light of the conducted literature and the possibility of the SB victimisation prevalence rates reported in previous studies being unreliable due to the terminology inconsistencies, it was only fitting to explore this aspect in great detail. In this study out of the 408 participants 60.7% reported that they had been SB victimised at some point in their life, agreeing with Wang et al. (2009) and Elias and Zinsd (2003) that reported rates up to 53.6% and up 70%. It is therefore evident that despite the samples' differences, still the rates appear similar, and suggest that SB victimisation is perhaps disturbingly high. Furthermore, when comparing the reported frequency of victimisation (11%) to previous studies (Frisén, et al. 2008), results from this sample suggested a higher percentage of weekly harassment (39.7%), while a respectful

percentage (24.1%) reported one or more times of daily harassment. Twenty-four per cent might not seem alarming, but given the fact that it is repeated daily, it is acknowledged that, it can result in severe psychological and perhaps physical consequences for the victims.

From the 246 participants that had experienced SB victimisation 41.2% of participants reported that they were Sort of able to defend themselves, suggesting an attempt but not success. Moreover, 31.6% said Yes, and only 27.2% said they could not defend themselves; indicating that perhaps Camodeca and Goossens (2005) might have been correct when suggested that SB victims might not be so helpless after all. In addition, the results imply that individual levels of resilience might play a role, although this aspect was not examined in this study, but is worthwhile of exploration with a future project. Next, the majority of victims had been victimised by peers in their class (71.9% by girls and 49.8% by boys), followed by someone popular (48.6%) and someone that has many friends (40.2%); indicating that SB might start in the classroom which can be thought of as a micro community within the school. Directly these findings exclude the power imbalance criterion in terms of age from the Olweus (1993) terminology; nonetheless, it does not exclude power imbalance in terms of social status and popularity. Furthermore, 24.9% of participants referred to their perpetrator as someone stronger or more powerful, therefore retaining the aspect of physical strength as a terminology criterion. As a result, future research should take into account that, the criterion referring to the power imbalance in the definition of SB might not necessarily be age difference, but other aspects such as popularity and strength. The latter finding suggests that either the definition of SB requires re-evaluation or researchers should allow participants to express in more detail what SB victimisation means to them.

In terms of victims' perception as to why they had been victimised, the majority of participants referred to their appearance such as body weight (35%), being different (30.1%), their face (29.7%), and appearance because of dressing choices (25.2%). While, a respectful percentage referred to reasons that had to do with how perpetrators perceived victims in terms of their personality (e.g. 13.8% for cry a lot). Furthermore, being different and being victimised for standing out from the norm has been previously supported (Frisén, et al., 2008); therefore, the findings from this study confirm that young individuals should be educated on how to accept people's differences and respect the physical appearance and emotional construct of others.

Participants also answered how were they victimised and the majority of the 246 victims from this study faced verbal victimisation (82%), followed by bullies spreading rumours or discrediting the victim (74.8%), exclusion from groups (50.8%), and last physical victimisation (32.8%). In general, the results agree with previous studies (Wang, et al., 2009) that reported higher verbal victimisation, followed by social means, and last physical. This might explain the reason that many (see Harcourt, et al., 2014) perceive SB as teasing, since verbal victimisation although a direct mean, has no immediate obvious consequences (e.g. bruises), thus could be misinterpreted as not severe.

Since research (Brown, et al., 2013; Sawyer, et al., 2011) indicated that parents' awareness of their offspring victimisation plays a role in SB victimisation, this project examined the factor and results showed that the majority of participants (54%) reported that their parents were aware of the victimisation, and 30.8% said that they had not told their parents. This agrees with previous projects (Holt et al., 2009) that informed that 61% % of victims told their parents about the victimisation. It was also hypothesised that parents' awareness and victimisation are related, and the chi-

square of independence confirmed that indeed parents' awareness of victimisation and SB victimisation occurrence are not independent. Perhaps, suggesting that the more parents become aware of their children's victimisation the more they are able to protect their children from further SB victimisation, advise them and also take action in cooperation with the school.

Other previous projects (Jankauskiene, et al., 2008) suggested that victimisation at home also plays a role in terms of SB victimisation, therefore, this study looked at the possible relationship of bullied at home and SB victimisation occurrence. It was hypothesised that bullying victimisation experiences at home are related with victimisation at school. Once more, the hypothesis was accepted as the Chi-square of independence showed that the two variables are not independent, therefore, agreeing with Jankauskiene, et al. (2008) who concluded that victimisation at home might increase the odds of being SB victimised. However, it has to be noted that the majority of participants (71.1%) had not been victimised at home; prevalence rates for victimisation at home were relatively low. Regardless, parents are advised to mind their behaviour and their relatives' behaviour at home towards children, as bullying behaviour clearly has an effect on SB victimisation. Perhaps, children adopt a victim status at home, accept and retain the same at school.

Reaching to one of the most crucial questions of this thesis, that being victims' perceptions and experiences of what stops SB victimisation. It was found that for 41.4% of victims, victimisation stopped when they left the particular school. While the next higher percentage (36.5%) of victims stated that they stood up to the bullies, and 22.5% said that victimisation stopped without any particular reason. The findings agree with Frisén, et al. (2012), who stated that there is great difficulty in stopping victimisation once an individual has been branded as a victim at a particular school.

Perhaps students are right to suggest fighting back as the best solution for stopping victimisation, as Black, et al., (2010) advised. On the other hand, parents' and teachers' intervention as means to stop victimisation was also reported by fewer participants. With such findings, it could be assumed that victimisation most likely will not end until the perpetrator or the victim leave that school, unless the victim stands up to the perpetrator and fights back. Regardless, standing up to the perpetrator as a suggestion should be considered with caution as frequently fighting back may lead to escalated victimisation and maintenance of the victimisation-perpetration cycle.

Finally, the majority of victims (62.7%) had tried, and sort of tried but without major success (10%) to protect another victim, and intervene when they found themselves as bystanders, while 27.3% reported that they did not intervene. Thus, suggesting that victims tend to show compassion and support for fellow peers that suffer similar experiences. The majority of participants (78.3%) who tried to help another victim, acted in such a way because they believed that bullying is not right, while a major proportion felt compassion for the other victim (68.9%), and of course it reminded them of their own torment and didn't want others to suffer in the same way they did (63.9%), while wished someone could have done the same for them (60%). Moreover, it seems that when it comes to victims' friends being victimised, victims find the courage and stand up to the perpetrator for their friends (41.1%) and family (25.6%). Finally, it might be possible that due to victims' experiences, their empathy level and sense of justice could be increased, as 40% reported that they intervened because the other victim was being victimised for the wrong reason, such as being younger (11.7%). The findings from this section suggest that it takes one to know one, and most likely the reason that victims tend to adjust better in classrooms

that other victims exist (Huitsing, et al., 2012), is because of the shared experiences and understanding for each other. Perhaps schools should consider creating support groups for SB victims, where such individuals share their experiences, offer non-violent solutions and find understanding from others who suffered similar events.

## **2.14. Conclusion**

In this chapter SB victimisation was examined and various related aspects were explored. In general, there were no surprises in the findings and the results appear to agree with previous studies. The SB victimisation rates appear high, although others recorded similar numbers previously. The daily repeated victimisation experiences were recorded for only 24% of the victimised participants, which is alarming, considering the velocity of escalation of mental health issues for those victims. Nonetheless, the findings also suggest that victims can fight back and they perceive retaliation as an effective way to stop victimisation. Perhaps the most important finding in this chapter was the fact that both the majority of male and female participants had been victimised by peers in their class, which leads to the exclusion of the power imbalance criterion from the SB terminology, at least in terms of age differences. Finally, it was also confirmed that it is of importance for parents to be aware of their children's victimisation, as equally important is the absence of bullying at home. Which leads to the next chapter that discusses SB perpetration in detail.

## ***Chapter 3 - The SB Perpetrator***

### **3.1. SB Bullies**

The current chapter is exploring prevalence rates of SB perpetration, while reports findings on related aspects to bullying behavior at schools, with consistency, as the same aspects were explored in the previous chapter for SB victimisation. The prevalence, characteristics and factors related to SB perpetration have been widely studied over the course of the last decades (Welch, 2008). SB perpetrators can be of any age, gender, race, religion, sexual orientation etc. (Renshaw, 2001), and despite the negative consequences of their actions, some bullies feel popular and proud when attracting attention from the media (Gannon, 2008). SB bullies or perpetrators as they will be referred to from now on, manifest their behaviour in the class, in other school premises, on the street, in school clubs and even after-school activity groups (Berry & Adams, 2016). Therefore, perpetration can occur anywhere and at anytime of the period that students are at school or school premises. Frequently, adults do not monitor some of the premises of the school, consequently, making it harder to intervene during bullying incidents.

### **3.2. SB Perpetrator Characteristics**

Like with SB victims, SB perpetrator characteristics equally vary, although there are some frequently reported personality characteristics. For example they exhibit increased levels of aggression, dominant and impulsive behaviours that also tend to be deliberate, they are proactive and goal oriented in their aggression, whilst,

being more accepted by their peers in comparison to victims (Conners-Burrow, et al., 2009). SB perpetrators, are further subcategorised into: A) Physical who with age tend to become more aggressive. B) Verbal, exhibited with humiliation, name-calling, sexist, or racist comments. C) Relational, those are usually females who aim to isolate their victims from social groups. D) And, reactive victims that perpetrate in the form of retaliation (Mount, 2005). Moreover, it has been found that SB perpetrators tend to CB victimise their SB victims online (Lembrechts, 2012). The latter shows the overlapping effect between SB and CB as a continuum from one form to the other, but also indicates that retaliation is considered perpetration. Therefore a question arises: should victims not react to their victimisation, and if that is the common advice are we turning children into adults with apathy and lead them to believe that accepting victimisation is the right way to deal with bullying? Of course, the answer is not that simple; retaliation has many forms, but are children of all ages capable of differentiating between right and wrong expression forms and do they have the mental tools to control their impulses. Questions such as the above are some of the complications that lead anti-bullying programmes into mere efficiency if not failure.

Other projects (Meland, Rydning, Lobben, Breidablik & Ekeland, 2010) showed that SB perpetrators show greater emotional impairments and psychosomatic complaints, lack of self-confidence and pessimism, than students not involved in bullying; while also seem to face difficulties relating to school, parents, and teachers. In addition, they seem to engage in truancy (Wilson, Celedonia & Kamala, 2013), but are not likely to suffer from loneliness as they usually have other bullies as friends (Shin, 2010). In general, SB perpetrators tend to behave in a stable and persistent manner with higher scores in psychoticism, with difficulties in detecting basic emotions such as the victims' fear or sadness, and also seem to enjoy dominating

other people. In terms of school and home environment, SB bullies have poor academic achievement and dislike the school environment, while often live in a troubled family environment with parents using physical discipline. In terms of relationships, SB perpetrators can be extraverted, as means to be liked by their peers; which might explain their continuous struggle to maintain the status and profile of the strong and popular (Felipe, García, Babarr & Arias, 2011).

### **3.3. SB Perpetrators' Motivation Victimising Others**

There are projects that suggest family conflict and academic failure as reasons behind such behaviours (Hemphill, Kotevski, Tollit, Smith, Herrenkohl, Toumbourou & Catalano, 2012). Others (Álvarez-García, García & Núñez, 2015), indicated competitiveness, pursuit of social status within the peer group, physical factors such body mass index, antisocial behaviour, impulsivity, hyperactivity, the absence of empathy, aggressiveness (especially proactive) and antisocial behaviour. Other factors include low self-esteem, support from their classmates when they actually harass the victim, unclear rules from the teachers and the school in terms of acceptable and appropriate behaviour, lack of parents' interest and boundaries at home, and exposure to family violence (Álvarez-García, et al., 2015).

Likewise, Chui and Chan (2015;2014;) indicated self-centeredness, volatile temper and parental deviance as perpetration motives. Age difference could be another reason, as younger individuals may appear vulnerable, or it could be victims' physical disabilities, injuries, body type, and anorexia. Other reasons include the perpetrators' need to express their anger perhaps triggered by family conflict, and even perpetration may feel as a source of excitement, dominance and achievement. Finally, Burns, Maycock Cross & Brown (2008) informed that the need for belonging and status are the most frequent reasons; while pressure from others, the need to

conform, the need to maintain a certain reputation and profile at school are leading motivational reasons for SB perpetration.

### **3.4. Frequency of SB Perpetration**

Once more, the rates of SB perpetration vary widely in literature (McNicholas & Orpinas, 2016). Bjereld, Daneback and Petzold (2015) informed that in the Nordic countries between 1996 and 2011 perpetrators targeted mostly immigrants (27.8%) in comparison to native individuals (8.6%). Likewise, Jansen, Verlinden, Berkel, Mieloo, Ende, Veenstra, R., . . . and Tiemeier (2012) informed that 1/3 of 6379 five to six year-old children in their study were involved in SB, with 17% being perpetrators. Others (Maïano, Aimé, Salvas, Morin & Normand, 2016) that conducted systematic reviews reported that the mean rate of perpetration among the studies were approximately 15.1%.

On the other hand, Mosia (2015) suggested that 14.4% of students of their sample admitted being perpetrators; while 10.4% of teachers informed that there was no perpetration. Nonetheless, from the teachers that saw perpetration (47%) only 9.4% always disciplined the bully, with only 2% of teachers involving parents in order to resolve such matters, and rarely (75.8%) reporting the incidents to school administration. The latter study suggests that student-reported rates differ from the rates reported by teachers and parents. Thus, the SB perpetration rates, like the victimisation rates are reliable only when students themselves admit perpetration, which is problematic since the majority of perpetrators will not admit their behaviour unless they are caught in action.

### **3.5. Ways of SB Perpetration**

Literature (Vieno, Gini & Santinello, 2011) in terms of preferred perpetration means has showed that verbal SB has the lead with 52%, followed by relational (47.9%), sexual (18.5%), physical (11.6%), and last racist SB (9.4%); with males preferring the more direct means of perpetration and females preferring the more indirect means (e.g. exclusion) (Yang & Salmivalli, 2013). There are of course others (Low & Espelage, 2013), suggesting CB as a preferred way of SB, as it begins at school and continues online after school. Bradshaw, Waasdorp and Johnson (2015;2014;) proposed that, there is an overlap of the SB perpetration means, implying that verbal (16.9%) can escalate to physical, and physical can escalate to CB (4.3%) and/or the opposite. Finally, Scheithauer, Hayer and Petermann (2006) reported that from the 2,086 fifth–tenth grader students from schools in two German federal states, and from the 12.1% of the perpetrators, commonly relational and verbal forms of perpetration co-occurred; with males engaging in more aggressive means of perpetration and females engaging in more indirect ways.

### **3.6. Parent Awareness and SB Perpetration**

In order to prevent perpetration repetition, parents and teachers should get involved when SB perpetration occurs (Lovegrove, Bellmore, Green, Jens & Ostrov, 2013). Some studies (Fekkes, (2004;2005,) informed that when teachers become aware of SB perpetration they often try to stop it, which often leads to repetition as an act of revenge. Moreover, the majority of parents do not attempt to explain to perpetrators why SB is wrong or how it affects victims. In more detail, Fekkes (2004;2005;) indicated that only 53% of the regularly victimised children told their teacher and 67% told their parents; while in 49% of the cases teachers were able to stop SB and parents were successful in 46% of the cases. However, perpetrators themselves do not report their negative behaviour to their teachers or their parents,

unless they are caught in action. From the ones that do get caught only 52.1% of the teachers and 33.3% of the parents talked to them about their behaviour. Consequently, how are children and adolescents expected to change if they are not given the reasons for which they should change their behaviour.

Other projects (Holt, Kaufman Kantor & Finkelhor, 2009) reported that the perpetrator's family is often unaware of their children's actions towards other individuals; however, when parents were aware of such incidents they would often discipline their child in some way. The authors of the latter study also informed that 69% of children who reported SB perpetration to their parents received some kind of discipline, but that was mostly for physical bullying.

### **3.7. Reasons that SB Perpetrators Stop Bullying**

Apart from teachers' and parents' involvement, there are other factors that persuade perpetrators to stop victimisation. Often, bystanders' critique of such incidents helps perpetrators to recognise their wrong behaviour. Other factors include perpetrators' and victims' maturation, implementing anti-bullying strategies as well as education of students at school (Salmivalli, Kaukiainen & Voeten, 2005).

Nonetheless, Schäfer, Korn, Brodbeck, Wolke and Schulz (2005) supported that perpetrators exhibit a stable behaviour over the course of the school years and stops when they leave school. Reasonably so, as perpetrators do not actively seek to alter their behaviour as victims do.

On the contrary, Garandeau, Vartio, Poskiparta and Salmivalli (2016) found that attempts at making perpetrators feel empathy for the victim and condemning their behaviour both increased perpetrators' intention cease victimising others. Similar projects (Garandeau, Poskiparta & Salmivalli, 2014) informed that if teachers organise discussions with SB perpetrators and either confront them or indirectly try to

explain the various reasons that SB is wrong, could cease perpetration behaviour up to 78%. However, the direct confronting approach works better for older students than younger students, and indirect approaches work better for short-term SB perpetration.

Finally, Lam and Liu (2007) divided the SB into four phases: the rejecting phase, the performing phase, the perpetuating phase, and the withdrawing phase. The rejecting phase suggests identifying with the victims thus reject SB perpetration, although if an individual's peer group consists of other perpetrators then naturally the behaviour is learned and the risk of engaging in similar actions increases. The performing phase is when the individual moves toward becoming a perpetrator, and that occurs by these individuals witnessing SB perpetration more frequently and in various settings. The perpetuating phase suggests that the individual enjoys being a perpetrator because of material reward, fun, emotional release, and sense of power, belonging and dominance. At this stage, there are factors that lead to inhibition of such behaviours, such as school punishment, control exerted by the family, and sympathy for the victims, and moral reasons. Last comes the withdrawing phase, which indicates moving away from such behaviour, for example with disciplinary action from the school or the family. In essence it is the triad of family, school and peer environment that are critical factors for stopping SB perpetration.

### **3.8. Do SB Perpetrators Protect Other Bullies' Victims**

For this question to be answered positively, it would constitute empathy increase and the perpetrator's overall perception change of the perpetration. In general, this aspect has not been deeply explored; and literature provides limited information in terms of perpetrators changing sides, in comparison to victims that often make the role switch and become perpetrators themselves (Huizing, Veenstra, Sainio & Salmivalli, (2012). Perpetrators certainly are not evil individuals with a sole

purpose in their lives to hurt others; instead they are individuals that begun this behaviour for various reasons but still have friends, family and support from peer groups (Holt & Espelage, 2007). Although research does not say much about whether perpetrators protect someone else's victims, nonetheless, studies (Perren & Alsaker, 2006) informed that from a young age, perpetrators tend to belong to larger social clusters and frequently affiliate with other perpetrators or bully-victims. Based on the above, it could be assumed that perpetrators support other group members, if the latter are victimised.

### **3.9. Reasons That SB Perpetrators Might Protect Other Bullies' Victims**

As mentioned previously, people of all ages tend to form friendships with similar peers and, in turn, these peers further influence their behaviors and attitudes. Lodder, Scholte, Cillessen and Giletta (2016) specifically showed that at the level of the larger friendship network, adolescents tend to select friends with similar levels of SB victimisation as they themselves. Therefore, perhaps the same applies to SB perpetrators. Such individuals also tend to form cliques with the members having common characteristics, such as aggression, physical strength, etc. As a result, these individuals develop bonds with other group members, resembling gang group behaviour where each member will support other members when in need. These cliques, are perceived as friendships, as a result if a member of the bully gang is victimised by another clique or an individual, the members of the first group most likely will react, protect and support the victimised member, and could even reciprocate by victimising a member of the second group. Concluding, by taking the related literature into account and the questions that remain unanswered, it is clear that SB perpetration has room for more exploration, by considering various related aspects, which were also studied in SB victimisation.

### **3.10. SB Perpetration Related Hypotheses**

Taking previous literature into account it is expected that, as with SB victimisation, parents' awareness of their offspring's perpetrating behaviour is related to SB perpetration.

### **3.11. Results**

**Descriptive Statistics:** From the 408 participants that completed the survey 328 (80.4%) reported that they had never SB perpetrated, 44 (10.8%) reported Yes, and 36 (8.8%) reported Sort of bullied or otherwise perceived the actions as teasing someone else. From the participants that reported Yes and Sort of, 11 (12.1%) said they SB perpetrated one or more times a day, 21 (23.1%) one or more times a week, and 59 (64.8%) reported one or more times a month. Out of the 80 participants that in some degree admitted SB perpetration, the most preferred perpetration means are presented in Table 3.11.1.

Table 3.11.1. *Most prevalent SB perpetration means.*

Most prevalent SB perpetration means	Frequencies
Made fun of the victims	42 (53.8%)
Called them names	31 (39.7%)
Said mean things behind the victims' back	27 (34.6%)
Played jokes on the victims	25 (32.1%)
Won't let victims be part of a group	20 (25.6%)
Pushed or shoved them	12 (15.4%)
Attacked them	8 (10.3%)
Nobody would talk to the victims	8 (10.3%)
Wrote bad things about the victims	7 (9%)
Threats	6 (7.7%)
Broke victims' things	3 (3.8%)
Laughed when others bullied the victims	3 (3.8)

Moreover, the maximum of the perpetration intensity was 10, the minimum zero, with a variance of 1.6 ( $M = .49$ ,  $SD = 1.28$ ). Participants were also asked whom did they bully the most and responses are presented below in Table 3.11.2:

Table 3.11.2. *Who did SB perpetrators victimised the most.*

Who did SB perpetrators victimised the most	Frequencies
Girls in my grade	38 (48.7%)
Boys in my grade	26 (33.3%)
Someone popular	7 (9%)
Someone I didn't know	6 (7.7%)
Someone smart	4 (4.1%)
Younger girls	4 (5.1%)
Younger boys	4 (5.1%)
Older boys	3 (3.8%)
Someone with many friends	3 (3.8%)
Someone powerful	2 (2.6%)
Older girls	2 (2.6%)
An adult	2 (2.6%)
And the rest reported someone with no friends, a girl that slept with my boyfriend, ex friend, boys from my neighbourhood, brother	9 (11.7%)

Next participants were asked about their perpetration motives and the responses are presented in Table 3.11.3.

Table 3.11.3. *Perpetrators' motivation for victimising others.*

Perpetrators' motivation for victimising others	Frequencies
They don't get along with other people	18 (23.7%)
Different	11 (14.3%)
Wimp	8 (10.4%)
Their friends are weird	7 (9.1%)
Their face looks funny	7 (9.1%)
The clothes they wear	6 (7.8%)
They get angry a lot	4 (5.2%)
Their family has a lot of money	4 (5.2%)
Where they live	4 (5.2%)
They are fat	4 (5.2%)
They are disabled	4 (5.2%)
Their parents	2 (2.6%)
Their sister	2 (2.6%)
They look too young	2 (2.6%)
They cry a lot	2 (2.6%)
They say they are gay	2 (2.6%)
The way they walk	2 (2.6%)
Other reasons included: too skinny, good grades, poor family, too short, special education, attacked me first, revenge, mental disorder, they lie, appearance, it was natural, I was young, other popular people were doing it, disrespected my friends, pack mentality, annoying, they were British.	<2%

In terms of parental awareness regarding their children's SB perpetration, 24 (30.8%) said that their parents were aware, 21 (26.9%) said that they did not know whether their parents knew, and 33 (42.3%) reported No. Participants were then asked why they stopped perpetration and the responses are summarised in table 3.11.4 below:

Table 3.11.4. *Why did perpetrators stop victimising others.*

Why did perpetrators stopped victimising others	Frequencies
Guilt	42 (53.8%)
Pity	38 (48.7%)
No specific reason	25 (32.1%)
Teachers intervened	8 (10.3%)
I matured	8 (10.3%)
My parents intervened	7 (9%)
I stopped when I left school	5 (6.4%)
Victim's parents intervened	4 (5.1%)
Authorities intervened	2 (2.6%)
I changed school	2 (2.6%)
And other reasons included: the victim changed schools, they stood up to me, I was punished, the victim changed the reason I bullied for, my views changed, bored, wrong, I saw they were sad, didn't care anymore, I didn't know I was bullying them till my teacher told me, it was just a period.	<2%

Perpetrators were then asked if they had ever protected another perpetrator's victim and 54 (68.4%) said Yes, 22 (27.8%) said No, and three (3.8%) said Sort of, meaning intervened but did not persist. The reasons that motivated them to protect someone else's victims are presented in Table 3.11.5 below:

Table 3.11.5. *Why did perpetrators attempted to protect someone else's victims.*

Why did perpetrators attempted to protect someone else's victims	Frequencies
I realised bullying was wrong	35 (59.3%)
I felt sorry for that person	33 (55.9%)
He/she was my friend	24 (40.7%)
I wanted to make up for the bullying I had done	17 (28.8%)
The reason that person was bullied for was wrong	17 (28.8%)
He/she was my family	15 (25.4%)
I had bullied that person in the past and I felt guilty	9 (15.3%)
That person was much younger than the bully	9 (15.3%)
It was a decision of the moment	7 (11.9%)
It was the right thing to do	1 (1.7%)

Finally, perpetrators were asked if they managed to stop the victimisation of other perpetrators' victims when they intervened and 34 (57.6%) said Yes, 20 (33.9%) Sort of or in other words was not entirely successful, five (8.5%) said No, but no participant reported that the intervention made it worse.

**Inferential Statistics:** Concluding the Chi-Square Test of Independence suggests that parents' awareness of SB perpetration and SB perpetration occurrence are related to one another ( $\chi^2(6) = 4.6$ ,  $p < .001$ , Fisher's exact two tailed test = 359.12,  $p < .001$ ).

### **3.12. Chapter 3 Discussion**

Following the exploration of SB victimisation, it was appropriate to examine the same aspects for SB perpetration with consistency. From the 408 participants that completed the survey, the majority (328, 80.4%) had never SB perpetrated, and 80 (19.6%) reported that they sort of and definitely SB perpetrated someone; the rates of SB perpetration were not disturbingly high in comparison to other projects (McNicholas & Orpinas, 2016) that reported perpetration rates up to 69%. Nonetheless, the results fall under the mean prevalence perpetration rates (15.1%) reported in Mañano et al. (2016). In terms of frequency the majority of perpetrators (59, 64.8%) victimised someone one or more times a month, 21 (23.1%) one or more times a week and only 11 (12.1%) victimised someone one or more times a day. Like in SB victimisation, the frequency of daily perpetration might not seem high, however these 11 perpetrators made a negative difference to their victims' daily school lives by harassing them repeatedly; particularly if we were to compare the daily victimisation rates reported in the previous chapter (62, 24.1%).

In terms of the reasons, these perpetrators were targeting particular victims, the majority (18, 23.7%) reported that these victims did not get along with other

people and that they were different (11, 14.3%). These rates suggest that there is a concordance between victims and bullies in terms of the perceived reasons of victimisation and perpetration. As it was shown in the previous chapter, 30.1% of victims reported that their victimisation resulted from being different in comparison to their peers, and for not getting along with other people (8.5%). Targeting individuals outside the norm does not come as a surprise, as it was previously found in Álvarez-García, et al. (2015). Regardless, the latter rates do not align with victims' perceptions that supported body mass (35%) as a primary reason, face (29.7%), and choice of clothing (25.2%). Other differences for which the current perpetrators victimised their targets, included financial status, although once more such reasons have been reported previously (Frisén, et al., 2008). Such, results suggest that anti-bullying policies should focus on teaching young people how to accept others for who they are and respect the differences in terms of appearance, personality, financial status and other aspects. Perhaps if children were to respect the beauty of individual differences from a young age, the rates of bullying might decrease or be eliminated. Finally, amongst the reasons perpetrators also reported conformity, as other popular individuals were doing it. Therefore, suggesting that some perpetrators might not actually be triggered by the victims' characteristics, but instead it might be the perpetrator's need of belonging, acceptance by peers and setting their status in the group that leads them to victimising others. In fact, Burns, et al. (2008) suggested that perpetrators frequently victimise the same victims that others target in order to conform and be liked.

As with SB victimisation, likewise with SB perpetration, verbal bullying had the lead in SB means, second came physical bullying, third came spreading rumours and last came exclusion. It must be noted here that participants were asked to tick all options that applied to them, and in most of the cases participants had chosen more

that one way of perpetration. Therefore, agreeing with Scheithauer, et al. (2006) that suggested an overlap between the SB perpetration/victimisation means. Nonetheless, the conclusion is that verbal SB is perhaps the most prevalent mean as suggested by Vieno, et al. (2011). In terms of physical perpetration coming second, a possible explanation is that placing “played jokes on them” under physical perpetration increased the rates. It was perceived that playing jokes on others requires some kind of physical action and thus it was placed under physical SB, while this way there was consistency between measuring victimisation and perpetration.

Coming to one of the most important aspects, that being parents’ awareness of bullying behaviour, it turned out the majority of participants (42.3%) were perpetrating and their parents were not aware, 30.8% reported that their parents knew, and 26.9% said that they did not know if their parents were aware. Thus, results agree with Holt, et al. (2009) that informed that parents are often unaware of what their children do at school in terms of SB. Not telling a parent of SB perpetration makes sense as the majority of perpetrators (69%) that their parents know of their negative behaviour receive some kind of punishment. Therefore, it is highly likely that perpetrators do what they can to keep their parents in the dark. However, Lovegrove, et al. (2013) indicated that it is imperative for parents and teachers to know in order to have the opportunity to intervene and attempt to stop that behaviour. Therefore, it is highly suggested that parents get involved in the anti-bullying strategies. Schools on the other hand, should discuss such incidents with parents in order to raise awareness and inform parents of their children’s behaviour at school. Furthermore, for this chapter the association between parental awareness and SB perpetration occurrence was examined, and the findings suggest that these two variables are not independent, consequently accepting the hypothesis., Suggesting that the more parents know about

their children's negative behaviour at school the lower the likelihood of SB perpetration occurring or repeated. Perhaps, discipline in an appropriate and educating way might actually decrease the bullying rates; however, parents require advice if not training on the appropriate discipline means, as physical discipline or other extreme means could have the exact opposite result.

However, in this study, discipline was amongst the lower reported reasons for stopping perpetration. The main reasons that perpetrators stopped bullying were guilt (53.8%) and pity (sorry) (48.7%) for the victim; therefore, it makes absolute sense to attempt and increase perpetrators' empathy as suggested by Garandeau, et al. (2016). The next most common reason was "for no reason at all" (32.1%); it is possible that these individuals gain their status as a dominant student (Schäfer, et al., 2005) at school and then lose interest in SB perpetration, after all 10.3% of the perpetrators reported that they stopped because they matured. As stated earlier, the effect of teachers' and parents' intervention did not seem as great; only 10.3% stopped because the teachers intervened, only 9% stopped because their parents intervened, and only 5.1% because the victim's parents intervened. Nonetheless, though the effect might not be large, still it exists; indicating that to decrease SB perpetration rates all available means should be utilised. Finally, other projects (Salmivalli, et al., 2005) had informed that there is stability in the role of the bully over the duration of school years and therefore bullying behaviour stops when these individuals leave school. This project showed that only 6.4% of perpetrators stopped perpetration only when they left school and 2.6% when they changed schools. Indeed, there is stability in the role of the perpetrator; nonetheless, these percentages are quite low in comparison to the most common reason that was guilt.

As it seems, empathy and guilt have an effect on perpetrators, in terms of stopping SB perpetration. Implying that SB perpetrators bully because they might not be aware of the consequences, or they are not aware that they are actually hurting someone with their actions; or they perpetrate because they need to express themselves and their feelings and they do not know a healthy way (Holt & Espelage, 2007). No matter what the reason behind their behaviour, perpetrators are capable of changing if they are approached in the right way. After all, 68.4% of the perpetrators from this study reported that they had protected another victim from SB victimisation. To add to the latter, the most commonly reported reasons for protecting another victim was the realisation that bullying is wrong (59.3%) and empathy (55.9%). Moreover, Perren and Alsaker (2006) suggested that from a young age bullies tend to connect to larger social clusters with other bullies or bully-victims, as a result they form close relationships with other people no matter what category they belong. This project showed that 40.7% of the perpetrators protected another victim, because that victim was their friend or their family (25.4%); therefore suggesting that bullies are very much capable of empathising with the victim and recognising that SB is wrong. In addition, out of the 72.2% that did try or sort of tried to protect another victim, 57.6% successfully stopped the harassment, implying that peer intervention could potentially stop SB, regardless of the side the intervention originates.

### **3.13. Conclusion**

Chapter three examined SB perpetration, with consistency in regards to SB victimisation. Similarly, there were no surprises in the findings or any inconsistencies with previous studies. However, there are two main aspects that signify importance. First, like in victimisation, many participants reported that they perpetrated only once, which indicates that they disregarded the repetition criterion from the given bullying

terminology and they perceived hurting someone only once as SB perpetration. While in addition, again the majority of perpetrators targeted peers of the same age, thus excluding the imbalance of power in terms of age. Consequently, stressing the importance of re-evaluating the terminology of bullying, and the need for a definition that also explicitly represents youngsters' perceptions. The second important finding was the fact that the majority of perpetrators stopped their negative behaviour because guilt and pity or in other words aspects that are commonly found with empathetic people. Consequently, it is concluded that educators, researchers, schools and organisations that deal with bullying in general need to clarify that bullies are not heartless individuals. Perhaps, if these establishments and individuals were to explicitly show to the perpetrators, the consequences of bullying and explain from a young age why bullying is wrong, the rates could be decreased and some of the future perpetrators might not engage in such behaviour. For that to happen the triad of "peers – teachers – parents" must be actively involved, as it was clearly shown that parents' awareness of perpetration is related to bullying behaviour. Therefore, anti-bullying education for parents might be a way, as the wrong means of intervention might result to retaliation or escalation of negative behaviour, which leads to chapter four that explores the SB role switch.

## ***Chapter 4 - SB Role Switching***

### **4.1. Role Switching**

Up to this chapter, it was shown that occasionally victims retaliate with perpetration, and other times perpetrators are victimised by other SB perpetrators or their victims. In research, this group of individuals are referred as victim-bullies or bully-victims (Green, Felix, Sharkey, Furlong & Kras, 2013). The individuals of this category have been defined as passive-aggressive or active victims, reactive bullies or provocative victims (Felipe, García, Babarro & Arias, 2011).

Yang and Salmivalli (2013) showed that this less prevalent group of bully-victims engage significantly more in physical and verbal bullying and are usually males, in comparison to pure bullies. Moreover, this group frequently suffers all forms of victimisation and with more intensity than pure victims do, perhaps because they are more rejected by their peers and they might lack friends' support in comparison to the other two categories (Yang & Salmivalli, 2013). The latter is supported by other projects, which found that bully-victims are less liked by their peers than victims and bullies, while appear to have less friends than the other two types (Conners-Burrow, et al., 2009). In addition, bully-victims appear to lack remorse for their actions and often engage in SB as an act of revenge for their own victimisation (Edmondson & Zeman, 2009). Furthermore, Edmondson and Zeman

(2009) suggested that often bully-victims are victimised at home and thus perpetrate at school. It could be assumed that these individuals become angered at home and then act out at school, in an attempt to release their emotions and particularly their anger.

Regarding characteristics, bully-victims share characteristics with both pure bullies and pure victims, although this group shows the least positive psychosocial outcomes. They are usually more impulsive and reactive in their dominant and aggressive actions, which is why they are often referred as aggressive bullies rather than passive bullies. They are more frequently physically aggressive with peers, and tend to be more reactive and less goal-oriented in their aggression, than the pure bully individuals (Besag, 1989). Bully-victims also suffer higher levels of withdrawal, social problems, and they are more attention seekers (Inoko, Aoki, Kodaira & Osawa, 2011). Such individuals often irritate and tease others to create tension, they fight back when insulted or attacked, they show increased levels of anxiety and depression, lower self-esteem than the other two categories, while their parents tend to be either overprotective or neglectful and abusive (Felipe, et al., 2011). Finally, Lester, Cross, Shaw and Dooley (2012) suggested that the end of primary school to the beginning of secondary school is a critical time to intervene and attempt to stop the bully-victim behaviour. Concluding, this group of individuals is the least studied in comparison to SB pure victims and pure perpetrators, consequently is worth of further exploration.

#### **4.2. SB Role Switch Related Hypotheses**

Taking into account previous research, suggesting that there is an overlap between SB victimisation and perpetration, it is anticipated that SB victimisation and perpetration are related.

#### **4.3. Results**

**Descriptive Statistics:** From the 408 participants 246, (60.7%) reported victimisation, 44 (10.8%) reported perpetration, and 36 (8.8%) reported sort of bullied someone else.

**Inferential Statistics:** The Chi-Square of independence test showed that SB victimisation and perpetration are not independent ( $\chi^2(2) = 11.72, p = .003$ ) while according to Cramer's V victimisation had a small effect of .17 ( $p = .003$ ) on perpetration. Moreover, SB victimisation intensity and SB perpetration intensity are significantly associated ( $r_p = .12, p = .012$ ), showing that as perpetration intensity increases, so does victimisation intensity.

#### **4.4. Chapter 4 Discussion**

Although previous research (Green, et al., 2013) showed that the bully-victim category is less prevalent, nonetheless, the associated perpetration and victimisation is more intense in comparison to the other two categories (Yang & Salmivalli, 2013). Moreover, in the previous chapters it was found that victimisation and perpetration frequently overlap because of victims' retaliation or revenge. Particularly, in chapter two, it was shown that 62.7% of victims had attempted to protect another victim mainly because they felt that bullying is not right and they did not want the other victim to go through the same experiences as they did. Despite the nobility of such act (50% stopped the bullying & 46.2% sort of stopped the bullying), it is not known what kind of means they used to stop the bullying. It should be reminded that in chapter three it was found that 23.4% of perpetrators bullied others because they perceived them (others) as individuals that cannot get along with other people, while 11.7% of perpetrators bullied their victims for reasons that were related to their previous victimisation (e.g. bullied me first, attacked me first, etc.). This 11.7% of perpetrators can actually be considered victim-bullies as they had been victimised and

perpetrated. Moreover, the aforementioned acted upon their victimisation and that indicates reactive bullying as defined in previous literature (Felipe, et al., 2011).

In terms of overlapping between victimisation and perpetration, results from the Chi Square of Independence showed that these groups are not independent and are significantly positively associated in terms of intensity, thus accepting the hypothesis. The latter findings suggest that bully-victims most likely result from being victimised and then retaliate and reciprocate in the same way, while perpetrators become victimised when victims or peers that observe victimisation stand up to them and perhaps give bullies a taste of their own medicine as it has been previously supported (Edmondson & Zeman, 2009). However, retaliation maintains the SB victimisation-perpetration cycle, thus adding to the difficulty of efficiently dealing and ceasing bullying behaviour. It must be noted that SB role switch could have been better explored if participants had been asked directly whether they had ever acted upon their victimisation by retaliating and becoming perpetrators themselves. Consequently, advising future researchers to take this aspect into account for more reliable and insightful findings that could lead to SB rate decrease.

#### **4.5. Conclusion**

The main aspect that should remain from this chapter is that SB victimisation and SB perpetration often co-occur, because of retaliation or in other words revenge. Therefore, those that build anti-bullying strategies should help students understand that if they perpetrate, chances are that they will also be victimised. While, when they are victimised they should avoid reciprocating with violence since such choices will only maintain the SB cycle. Regardless, there are many factors that play a role in victims' decision to take revenge, such as personality characteristics, support from peers or family and even rigid aspects such as age and gender. Such factors are tested

against SB in great detail in this project, starting with the next chapter that examines background factors.

## ***Chapter 5 - Background Factors and SB***

### **5.1. General Introduction**

Up to this chapter a general introduction to SB and CB was provided, SB victimisation, perpetration and the role switch from victim to bully and vice versa were examined. Reaching the current chapter where the deeper exploration of the risk and preventive factors are tested against SB, focusing first on the rigid socio-demographic factors, which cannot be manipulated easily when included in anti-bullying strategies, but can be taken into account and form precautions.

### **5.2. Age and SB**

Age was amongst the first factors to consider. Age as a factor appears highly associated with both SB victimisation and perpetration; with younger children and particularly girls, being at more risk for victimisation (Annerbäck et al., 2014). Sourander Helstelä, Helenius and Piha (2000) reported that both victimisation and perpetration at a younger age are associated with victimisation and likewise perpetration at an older age, thus presenting a persistence of behaviour. Others (Reed, Nugent & Cooper, 2015) supported that victimisation decreases with age, while Boulton, Trueman and Flemington (2002) advised that researchers should not take for granted this gradual decline. In terms of a gradual decline of victimisation with age, not all studies agree. Von Marées and Petermann (2010) reported that although they found a small positive correlation between age and overall bullying score, they found no significant correlation between age and overall victimisation score; but indicated that bullying perpetration behaviour increases during primary school and stabilises

(Sentse, Kretschmer & Salmivalli, 2015), and reaches its peak just before school advancement (Von Marées & Petermann, 2010). Finally, Chaux and Castellanos (2015; 2014;) supported that older children are more at risk for perpetration and younger children are more at risk for victimisation, which could support the power imbalance in the Olweus terminology of SB. As it can be seen, age as a factor has been previously explored, although it is accompanied by a disagreement; consequently, it is important to be further explored in this project in an attempt to clarify the disagreement.

### **5.3. Gender and SB**

Gender is also one of the most commonly studied factors in relation to SB, and has been tested in more ways than can be thought of (for example see Newman, Woodcock & Dunham, 2006). One of the most agreed findings regarding gender differences and SB, is that boys engage in perpetration, bully-victim behavior, victimisation, and use more direct bullying more often than girls who prefer more relational indirect and more verbal attacks (Von Marées & Petermann, 2010). Others (Hoertel, Le Strat, Lavaud & Limosin, 2012) agreed and reported that prevalence of bullying behaviour was significantly higher in men (8.5%) than in women (4.2%), while consequences appeared more severe for females. In line with the latter, Lehman (2014) reported that boys are more at risk of victimisation than girls are if they do well at school. While others (Morales, Yubero & Larrañaga, 2016; Crapanzano, Frick, Childs & Terranova, 2011; O'Brien, 2011; Byrne, Dooley, Fitzgerald & Dolphin, 2016), found that perpetration rates were similar between the sexes (girls-13.7%, boys-15%) with no major associations between gender and overall SB involvement.

### **5.4. Race/ethnicity and SB**

It was obvious from the start that race and ethnicity play a role in bullying and

particularly in SB victimisation (Fox & Stallworth, 2005; Goldweber, Waasdorp & Bradshaw, 2013; Peguero & Williams, 2013; Williams & Peguero, 2013; Hargreaves, Bevilacqua & Shackleton, 2015). Maynard, Vaughn, Salas-Wright and Vaughn (2016) reported that in the USA immigrant youth are more likely to experience SB victimisation than native-born youth. Others (Schumann, Craig & Rosu, 2013) revealed that community diversity was associated with prevalence of racial victimisation, and indicated that minorities are more often SB victimised. On the contrary, Vervoort, Scholte, and Overbeek (2010) concluded that ethnic minority adolescents were less victimised; while in general, victimisation was more prevalent in ethnically heterogeneous classes, with ethnic minority adolescents SB perpetrating more in such classes.

Moreover, before the tragic event of 9/11, research on SB and racism was largely neglected (Eslea & Mukhtar, 2000). However, Eslea and Mukhtar (2000) examined racial SB in English schools, and their findings indicated that out of the 243 Hindu, Indian Muslim and Pakistani children, 57% of boys and 43% of girls had been victimised that school term, while all three ethnic groups suffered equally. Though, the interesting finding was that SB was at least as likely to occur by other Asian children of a different ethnic group as it was by white children, thus eliminating the factor of race or place of birth. Likewise, Wolke, Woods, Stanford and Schulz (2001) did not find any particular differences or associations between ethnicity and SB; such results though contradicted other studies (see Shin, D'Antonio, Son, Kim & Park, 2011; Raaska, Lapinleimu, Sinkkonen, Salmivalli, Matomäki,... & Elovainio, 2012). For example, Pottie, Dahal, Georgiades, Premji and Hassan (2015) who conducted a systematic review to examine first generation immigrant adolescents' likelihood of experiencing bullying, and compared to their later-generation and native born

counterparts, reported that first generation immigrant adolescents experience higher rates of bullying and peer aggression, compared to third generation and native counterparts. The authors also informed that speaking the non-native language often posed higher risks for victimisation. Finally, this particular phenomenon does not stop with graduating from school; Bergbom, Vartia-Vaananen and Kinnunen (2015) specified that immigrants face higher risks for victimisation later on at work as well. Consequently, race and ethnicity are considered significant factors and are examined in this project in more detail.

### **5.5. Religion and SB**

Religion often overlaps with racist bullying (Klein, 2015; Eslea & Mukhtar, 2000). For example, Dupper, Forrest-Bank and Lowry-Carusillo (2015; 2014) revealed that minority religious students in the USA, often feel isolated, suffer peer victimisation and occasionally victimised by teachers. In China, Pan and Spittal (2013) showed that SB rates vary among cities while religious bullying is significantly associated with suicidal ideation and depressive symptomology. Others (Cole-Lewis, Gipson, Opperman, Arango & King, 2016) verified such outcomes, but also presented involvement in religious activities as a protective factor for SB victimisation. Additionally, Dowd (2015) promoted such connectedness with a social group, while Weddle and New (2011) expressed concern for involving religion in anti-bullying programs. Finally, considering that first and even second-generation immigrants are more bullied (Walsh, De Clercq, Molcho, Harel-Fisch, Davison, ... & Gonneke, 2016;2015;) in combination with immigration on a global rise, and increased Islam-phobia, this association requires further attention and clarification on whether religion functions as a risk or as a protective factor for SB.

### **5.6. Sexual orientation and SB**

Although SB and sexual orientation is well studied (Russell, Day, Ioverno & Toomey, 2016; Berlan, Corliss, Field, Goodman & Bryn Austin, 2010; Coulter, Herrick, Friedman & Stall, 2016), and school policies focus on sexual orientation and gender identity, nonetheless this form is still prevalent (Patrick, Bell, Huang, Lazarakis & Edwards, 2013; Hillard, Love, Franks, Laris & Coyle, 2014). Findings varied from study to study; some (Semenyna & Vasey, 2016) supported that even gender-atypical behaviour is a strong predictor for SB, and others (Cénat, Blais, Hébert, Lavoie & Guerrier, 2015) informed that lesbian, gay and bisexual students and students who question their sexual identity are more often victimised. While in addition, sexual minority students are at greater risk for being threatened or injured with a weapon and bullied than heterosexual students (O'Malley Olsen, Kann, Vivolo-Kantor, Kinchen & McManus, 2014). However, it was found (Birkett, Espelage & Koenig, 2009; Bishop & Casida, 2011) that a positive school climate, a supportive, but not punitive school policy (Russellet al., 2016) and well prepared school staff (Kolbert, Crothers, Bundick, Wells, Buzgon, Berbary, . . . Senko, 2015) could reduce the rates of homophobic bullying.

## **5.7. Disabilities and SB**

Disabilities is perhaps a very general term; in some cases authors refer to learning disabilities, in other cases physical disabilities and of course mental disabilities. Literature is quite consistent, with studies (Vickers, 2009) informing that there is need for more empirical work on the subject as disable people face bullying often. Others (Christensen, Fraynt, Neece & Baker, 2012) reported that individuals with intellectual disabilities were significantly more likely to report victimisation (62%), in comparison to their non-intellectual disabled peers (41%). However, Houchins, Oakes and Johnson (2016) supported that most of the previous empirical

work was conducted with general population and only a handful of studies used participants with disabilities only. One such study (Rose, Simpson & Preast, 2016a), which used 1,183 participants with disabilities, indicated that victimisation predicted bullying and fighting. Furthermore, Rose, Simpson and Preast (2016b) stated that students with disabilities report proportionally higher rates of bullying, fighting, relational aggression, and victimisation, than do their peers without disabilities. As a consequence, it is concluded that disabilities are in need of a deeper examination.

### **5.8. Mental health and SB**

Although, mental health could be considered a disability, nonetheless, because SB has severe impact on people's mental health (Gruber & Fineran, 2008; Yen, Yang, Wang, Lin, Liu, ... & Tang, 2014), it was worthwhile to look into this association separately. Unlike other factors mental state/health/illness, appeared immediately in literature as associated to SB; however, this association was more related on how bullying is a factor for mental illness, rather than mental illness being a risk factor for SB perpetration or victimisation (Scott, Moore, Sly & Norman, 2014). Regardless, there were studies (Turcotte Benedict, Vivier & Gjelsvik, 2015) indicating that children with a diagnosis of depression, or anxiety, and attention deficit and hyperactivity disorder (ADHD) had threefold-increased odds of being an SB perpetrator. On the other hand, it was worthwhile to mention that some studies (Shetgiri, Lin & Flores, 2015; 2014) informed that maternal and paternal mental health were associated with bullying, in such a way that children with only one or both parents with suboptimal mental health showed higher bullying odds. Therefore, taking into account the limited research on the matter, it is concluded that mental health, as a factor requires more attention.

### **5.9. Physical health and SB**

Numerous studies have shown the negative consequences of SB to people's physical health, in terms of wellbeing (Kowalski & Limber, 2013), or how bullying affects the health of people belonging to minority groups (Zou, Andersen & Blosnich, 2013), psychosomatic consequences (Baldry, 2004), and even in terms of decreased blood pressure (Rosenthal, Earnshaw, Carroll-Scott, Henderson, Peters, McCaslin & Ickovics, 2015). However, when looking for empirical work that could indicate if physical health can function as a risk factor for SB victimisation or perpetration, only one article was found. Annerbäck et al., (2014) examined background factors for bullying and associations between SB victimisation and health problems with a sample of 4248 students in Sweden. Their findings showed that there were associations with poor general health for boys and girls, and mental health problems for girls showed stronger associations with higher frequency of bullying. This particular study suggested that children who are "different" in some respect, such as being overweight, appearance, or having a disease, were more vulnerable to bullying.

In terms of appearance, obesity is categorised under physical health as frequently victims are bullied because of their body mass (overweight or underweight), or because they wear braces, glasses etc. Appearance functions as a risk factor for SB victimisation (Lodge & Feldman, 2007; Magin, 2013) and various studies, have addressed the subject. For example, McClanahan, McCoy and Jacobsen (2015) reported that the most common SB form for girls in 14 countries was appearance based, while for boys, only in four countries SB was appearance based. Others (Fox & Farrow, 2009) had previously supported that overweight or obese children experience significantly more verbal and physical bullying than their non-overweight peers do. Whereas, Griffiths, Wolke, Page, Horwood and ALSPAC Study Team (2006; 2005) supported that when comparing to average weight boys, obese

boys are more likely to be overt bullies and more likely to be overt victims, while obese girls are more likely to be overt victims compared to average weight girls. The findings from the latter study imply that appearance, and particularly body mass can function both as a risk factor for victimisation and as a risk factor for perpetration. Consequently, more research is required in order to determine the effect level that physical health has on SB.

### **5.10. Background factors and Related to SB Hypotheses.**

Taking into account the examined literature on the included background factors, as well as the findings from chapter two and three of this thesis, some assumptions were formulated. However, considering that previous literature is in disagreement for most of the included factors in this chapter, the nature of the work functioned more as exploratory and there was no strong commitment to prediction a priori. Nonetheless, the assumptions are as follow:

1. Age, Gender, Having a disability, Mental health and Physical health are not significant factors for SB victimisation.
2. Ethnicity, Religion, and Sexual orientation are significant factors for SB victimisation.
3. Ethnicity, Religion, Sexual orientation, Having a disability, Mental health and Physical health are not significant factors for SB perpetration.
4. Age and Gender are significant factors for SB perpetration.

### **5.11. Results**

***Inferential Statistics:*** To explore the background predictors in terms of SB victimisation occurrence, victimisation intensity, perpetration occurrence, and perpetration intensity, four regression models were run. Binary logistic regression was preferred for predictors of victimisation occurrence, multinomial logistic regression

for perpetration occurrence, and linear regression for victimisation and perpetration intensity.

*Background Factors and SB Victimisation Occurrence:* A binary logistic regression was conducted to examine whether Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health had a significant effect on the odds of observing the Yes category of SB victimisation occurrence. The reference category for SB victimisation occurrence was No. Assumptions were taken into consideration and Variance Inflation Factors (VIFs) were calculated (Menard, 2009) (see Table 5.11.1 in appendix B).

The overall model was significant,  $\chi^2(18) = 42.13, p = .001$ , suggesting that Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health had a significant effect on the odds of observing the Yes category of SB Victim. McFadden's R-squared was calculated to examine the model fit (see Louviere, Hensher, & Swait, 2000), and the value was 0.08. However, only the coefficient for Religion *No religion* was significant (see Table 5.11.2),  $B = 0.72$ , OR = 2.06,  $p = .004$ , indicating that for a one unit increase in Religion *No religion*, the odds of observing the Yes category of SB Victim would increase by approximately 106%.

Table 5.11.2. *Logistic Regression Results with AGE, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health Predicting SB victimisation occurrence.*

Variable	<i>B</i>	<i>SE</i>	$\chi^2$	<i>p</i>	<i>OR</i>
(Intercept)	0.15	1.29	0.01	.905	
Age	0.03	0.01	2.81	.093	1.03
Gender Male	0.00	0.29	0.00	.990	1.00
Black African Caribbean Black British	1.13	0.82	1.89	.170	3.10
Ethnic Group Middle eastern	-0.82	1.04	0.62	.431	0.44
Ethnic Group Mixed multiple ethnic groups	0.48	0.73	0.44	.508	1.62
Ethnic Group White	-0.01	0.58	0.00	.983	0.99
Religion Muslim	-0.04	0.60	0.00	.950	0.96
Religion No religion	0.72	0.25	8.26	.004	2.06**
Religion Other Taoist, Sikh, Pagan, Jewish	-0.33	0.94	0.13	.722	0.72
Sexual orientation Heterosexual	-0.76	0.51	2.25	.133	0.47
Sexual orientation Homosexual	-0.73	0.92	0.63	.426	0.48
Sexual orientation Prefer not to say	-0.48	1.05	0.21	.648	0.62
Disabilities No	1.11	0.90	1.51	.220	3.03
Disabilities Yes	1.09	0.94	1.33	.249	2.96
Mental health No	0.11	0.64	0.03	.865	0.90
Mental health Yes	0.30	0.66	0.20	.655	1.34
Physical health No	1.20	1.04	1.31	.252	0.30
Physical health Yes	-0.02	1.08	0.00	.986	0.98

Note.  $\chi^2(18) = 42.13$ ,  $p = .001$ , McFadden  $R^2 = 0.08$ .

*Background Factors and SB Victimization Intensity:* Next, a linear regression analysis was conducted to assess whether Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health significantly predicted SB victimisation intensity. Assumptions were taken into consideration (see Field, 2009; Osborne & Walters, 2002; Bates, Mächler, Bolker, & Walker, 2014; DeCarlo, 1997; Stevens, 2009) (see Figure 5.11.1, Figure 5.11.2, Table 5.11.3 and Figure 5.11.3 in appendix B).

The results of the linear regression model were significant,  $F(18,389) = 3.32$ ,  $p < .001$ ,  $R^2 = 0.13$ , indicating that approximately 13% of the variance in SB victimisation intensity is explainable by Age, Gender, Ethnic Group, Religion, Sexual

orientation, Disabilities, Mental health, and Physical health. However, only the *No religion* category of Religion significantly predicted SB victimisation intensity,  $B = 0.82$ ,  $t(389) = 2.36$ ,  $p = .019$ . Based on this sample, this suggests that moving from the Christian all denominations to *No religion* category of Religion will increase the mean value of SB victimisation intensity by 0.82 units on average (see Table 5.11.4).

Table 5.11.4. Results for Linear Regression with Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health predicting Victimization Scale.

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	2.43	1.72	[−0.96, 5.81]	0.00	1.41	.160
Age	0.02	0.02	[−0.01, 0.06]	0.06	1.22	.222
Gender Male	0.14	0.40	[−0.65, 0.93]	0.02	0.34	.735
Black African Caribbean Black British	−0.18	1.12	[−2.39, 2.03]	−0.01	−0.16	.872
Middle eastern	−1.92	1.41	[−4.69, 0.86]	−0.07	−1.36	.176
Mixed multiple ethnic groups	0.29	1.00	[−1.68, 2.25]	0.02	0.29	.775
White	−0.14	0.81	[−1.74, 1.46]	−0.02	−0.17	.864
Religion Muslim	−0.23	0.83	[−1.87, 1.41]	−0.03	−0.28	.782
Religion No religion	0.82	0.35	[0.14, 1.51]	0.13	2.36	.019*
Religion Taoist, Sikh, Pagan, Jewish	1.27	1.27	[−1.23, 3.77]	0.05	1.00	.319
Sexual orientation Heterosexual	−0.99	0.60	[−2.18, 0.19]	−0.10	−1.65	.099
Sexual orientation Homosexual	−0.12	1.21	[−2.49, 2.25]	−0.01	−0.10	.920
Sexual orientation Prefer not to say	0.28	1.37	[−2.41, 2.98]	0.01	0.21	.836
Disabilities No	0.93	1.23	[−1.50, 3.36]	0.10	0.75	.452
Disabilities Yes	1.57	1.27	[−0.93, 4.08]	0.16	1.23	.218
Mental health No	−0.01	0.88	[−1.73, 1.72]	−0.00	−0.01	.993
Mental health Yes	1.15	0.90	[−0.63, 2.93]	0.16	1.27	.205
Physical health No	−0.97	1.26	[−3.45, 1.50]	−0.11	−0.78	.439
Physical health Yes	0.29	1.30	[−2.26, 2.84]	0.03	0.23	.821

Note. Results:  $F(18,389) = 3.32$ ,  $p < .001$ ,  $R^2 = 0.13$

Unstandardized Regression Equation: SB victimisation intensity = 2.43 + 0.02\*AGE + 0.14\*Gender Male - 0.18\*Ethnic Group Black African Caribbean Black British - 1.92\*Ethnic Group Middle eastern + 0.29\*Ethnic Group Mixed multiple ethnic groups - 0.14\*Ethnic Group White - 0.23\*Religion Muslim + 0.82\*Religion No religion + 1.27\*Religion Other Taoist, Sikh, Pagan, Jewish - 0.99\*Sexual orientation Heterosexual - 0.12\*Sexual orientation Homosexual + 0.28\*Sexual orientation Prefer not to say + 0.93\*Disabilities No + 1.57\*Disabilities Yes - 0.01\*Mental health No + 1.15\*Mental health Yes - 0.97\*Physical health No + 0.29\*Physical health Yes

*Background Factors and SB Perpetration Occurrence:* A multinomial logistic regression analysis was conducted to assess whether Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health had a significant effect on the odds of observing each response category of SB perpetration

occurrence relative to No. Assumptions were taken into consideration (see Table 5.11.5 in appendix B). The results of the multinomial logistic regression model were significant,  $\chi^2(36) = 60.18, p = .007$ , suggesting that Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health had a significant effect on the odds of observing at least one response category of SB perpetration occurrence relative to No, the McFadden's R-squared was 0.12. Since the overall model was significant, each predictor was examined further. Results showed that the regression coefficient for Age in response category Yes of SB perpetration occurrence was significant,  $B = 0.06, \chi^2 = 11.53, p < .001$ , suggesting that a one unit increase in Age would increase the odds of observing the Yes category of SB perpetration occurrence relative to No by 5.97%. Moreover, the regression coefficient for Gender Male in response category Yes of SB perpetration occurrence was significant,  $B = 1.63, \chi^2 = 17.26, p < .001$ , suggesting that being a Male would increase the odds of observing the Yes category of SB perpetration occurrence relative to No by 412.91% (see Table 5.11.6).

Table 5.11.6. *Multinomial Logistic Regression showing SB perpetration predicted by AGE, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	Response	B	SE	$\chi^2$	p	OR
(Intercept)	Sort of	0.07	1.74	0.00	.967	
AGE	Sort of	0.02	0.02	0.44	.506	1.02
Gender Male	Sort of	0.73	0.45	2.59	.107	2.08
Ethnic Group Black African Caribbean	Sort of	-18.49	6350.13	0.00	.998	0.00
Black British						
Middle eastern	Sort of	-18.53	7612.36	0.00	.998	0.00
Mixed multiple ethnic groups	Sort of	0.31	1.07	0.08	.771	1.37
White	Sort of	-1.66	0.89	3.45	.063	0.19
Religion Muslim	Sort of	-1.55	1.00	2.41	.120	0.21
Religion No religion	Sort of	-0.20	0.42	0.22	.636	0.82
Religion Taoist, Sikh, Pagan, Jewish	Sort of	-19.88	8248.51	0.00	.998	0.00
Heterosexual	Sort of	-0.71	0.60	1.40	.238	0.49
Homosexual	Sort of	0.25	1.08	0.05	.818	1.28
S.O Prefer not to say	Sort of	-0.03	1.32	0.00	.981	0.97
Disabilities No	Sort of	0.00	1.12	0.00	.996	1.00
Disabilities Yes	Sort of	0.02	1.15	0.00	.988	1.02
Mental health No	Sort of	-0.46	0.91	0.25	.618	0.63
Mental health Yes	Sort of	-0.15	0.94	0.02	.875	0.86
Physical health No	Sort of	-0.21	1.26	0.03	.866	0.81
Physical health Yes	Sort of	-0.16	1.30	0.02	.901	0.85
(Intercept)	Yes	-36.40	7988.82	0.00	.996	
AGE	Yes	0.06	0.02	11.53**	.001	1.06
Gender Male	Yes	1.63	0.39	17.26**	.001	5.13
Black African Caribbean Black British	Yes	1.25	1.26	0.99	.320	3.49
Middle eastern	Yes	1.58	1.30	1.48	.224	4.85
Mixed multiple ethnic groups	Yes	2.03	1.14	3.19	.074	7.59
White	Yes	1.22	1.04	1.39	.239	3.39
Religion Muslim	Yes	1.42	0.97	2.17	.141	4.14
Religion No religion	Yes	0.31	0.42	0.55	.459	1.37
Religion Taoist, Sikh, Pagan, Jewish	Yes	-18.26	7165.49	0.00	.998	0.00
Heterosexual	Yes	-0.49	0.71	0.48	.490	0.61
Homosexual	Yes	-17.53	5439.51	0.00	.997	0.00
S.O Prefer not to say	Yes	-18.13	7201.88	0.00	.998	0.00
Disabilities No	Yes	16.86	5306.30	0.00	.997	$2.11 \times 10^7$
Disabilities Yes	Yes	16.50	5306.30	0.00	.998	$1.47 \times 10^7$
Mental health No	Yes	-0.67	1.16	0.33	.564	0.51
Mental health Yes	Yes	-0.71	1.18	0.36	.547	0.49
Physical health No	Yes	15.51	5971.97	0.00	.998	$5.47 \times 10^6$
Physical health Yes	Yes	15.11	5971.97	0.00	.998	$3.66 \times 10^6$

Note.  $\chi^2(36) = 60.18, p = .007$ , McFadden  $R^2 = 0.12$ .

*Background Factors and SB Perpetration Intensity:* Finally, a linear regression analysis was conducted to assess whether Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health

significantly predicted SB perpetration intensity. Assumptions were taken into consideration (see Figure 5.11.4, Figure 5.11.5, Table 5.11.7 and Figure 5.11.6 in appendix B). The results of the linear regression model were significant,  $F(18,389) = 1.77$ ,  $p = .027$ ,  $R^2 = 0.08$ , indicating that approximately 8% of the variance in SB perpetration intensity is explainable by Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health. Age significantly predicted SB Perpetration intensity,  $B = 0.02$ ,  $t(389) = 2.10$ ,  $p = .036$ , suggesting that on average, a one-unit increase of Age will increase the value of SB perpetration intensity by 0.02 units. Also the Male category of Gender significantly predicted SB perpetration intensity,  $B = 0.60$ ,  $t(389) = 3.48$ ,  $p < .001$ . Based on this sample, this suggests that moving from the Female to Male category of Gender will increase the mean value of SB perpetration intensity by 0.60 units on average (see Table 5.11.8).

Table 5.11.8. *Results for Linear Regression with Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health predicting SB Perpetration intensity.*

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	-0.31	0.74	[-1.76, 1.13]	0.00	-0.42	.671
Age	0.02	0.01	[0.00, 0.03]	0.11	2.10*	.036
Gender Male	0.60	0.17	[0.26, 0.93]	0.18	3.48**	.001
Black African Caribbean Black British	0.20	0.48	[-0.74, 1.15]	0.02	0.42	.672
Middle eastern	-0.31	0.60	[-1.50, 0.87]	-0.03	-0.52	.602
Mixed multiple ethnic groups	0.81	0.43	[-0.03, 1.65]	0.12	1.90	.058
White	0.19	0.35	[-0.50, 0.87]	0.06	0.53	.594
Religion Muslim	0.47	0.36	[-0.23, 1.17]	0.13	1.32	.188
Religion No religion	0.06	0.15	[-0.23, 0.35]	0.02	0.41	.681
Religion Taoist, Sikh, Pagan, Jewish	-0.47	0.54	[-1.54, 0.60]	-0.05	-0.86	.392
S.O Heterosexual	-0.50	0.26	[-1.01, 0.00]	-0.12	-1.96	.050
S.O Homosexual	-0.75	0.52	[-1.76, 0.26]	-0.08	-1.46	.146
S.O Prefer not to say	-0.69	0.59	[-1.84, 0.46]	-0.06	-1.17	.241
Disabilities No	0.17	0.53	[-0.87, 1.21]	0.04	0.32	.749
Disabilities Yes	0.21	0.54	[-0.86, 1.28]	0.05	0.39	.699
Mental health No	-0.02	0.37	[-0.76, 0.71]	-0.01	-0.06	.953
Mental health Yes	0.07	0.39	[-0.69, 0.83]	0.02	0.17	.866
Physical health No	0.38	0.54	[-0.67, 1.44]	0.11	0.71	.477
Physical health Yes	0.15	0.55	[-0.94, 1.24]	0.04	0.28	.781

*Note.* Results:  $F(18,389) = 1.77$ ,  $p = .027$ ,  $R^2 = 0.08$   
Unstandardized Regression Equation: SB perpetration intensity =  $-0.31 + 0.02*\text{AGE} + 0.60*\text{Gender Male} + 0.20*\text{Ethnic Group Black African Caribbean Black British} - 0.31*\text{Ethnic Group Middle eastern} + 0.81*\text{Ethnic Group Mixed multiple ethnic groups} + 0.19*\text{Ethnic Group White} + 0.47*\text{Religion Muslim} + 0.06*\text{Religion No religion} - 0.47*\text{Religion Taoist, Sikh, Pagan, Jewish} - 0.50*\text{Sexual orientation Heterosexual} - 0.75*\text{Sexual orientation Homosexual} - 0.69*\text{Sexual orientation Prefer not to say} + 0.17*\text{Disabilities No} + 0.21*\text{Disabilities Yes} - 0.02*\text{Mental health No} + 0.07*\text{Mental health Yes} + 0.38*\text{Physical health No} + 0.15*\text{Physical health Yes}$

## 5.12. Chapter 5 Discussion

In this chapter, background variables were examined as predictors for SB victimisation, perpetration, victimisation intensity and perpetration intensity. These variables/factors included: age, gender, religion, ethnicity, sexual orientation, disabilities, mental health and physical health. For victimisation, it was assumed that Age, Gender, Having a disability, Mental health and Physical health are not significant factors for SB victimisation, whereas Ethnicity, Religion, and Sexual orientation are significant factors for SB victimisation.

The first model included all factors in terms of SB victimisation occurrence prediction, and results showed that the overall model was significant. However, when the factors were further explored, only being an atheist had a significant effect on SB victimisation occurring. Therefore, suggesting that the more one loses religiosity the more the odds of becoming SB victimised. In terms of predicting victimisation intensity, the same factors significantly explained 13% of the variance in SB victimisation intensity. Though, from further analysis, once more, it was found that only being an atheist significantly predicted victimisation intensity. Consequently, accepting the first assumption in total, and accepting the second assumption only in terms of religion. Specifically, the findings indicate that having no religion increases the odds of becoming an SB victim and suffering from more intense victimisation. Indeed previous research (Cole-Lewis, et al., 2016) had presented religion as a protective factor for SB victimisation. Therefore, it is agreed (Dowd, 2015) that belonging to group that promotes connectedness functions as a protective factor,

while the groups' members might even interfere when another group member is harassed.

In terms of Age, the results disagree with Annerbäck et al. (2014) and support Von Marées and Petermann (2010) who reported similar results to this study. It should be mentioned here that Chaux and Castellanos (2015; 2014;) supported that older children are more at risk for perpetration and younger children are more at risk for victimisation. Which, could explain the power imbalance in the terminology of SB. Regardless, in chapter two it was seen that the majority of victims were victimised by classmates of similar age (49.8% by boys & 71.9% by girls), while in chapter three also perpetrators bullied mostly individuals of the same age (48.7% girls & 33.3% boys). In terms of the other factors (Ethnicity, Sexual orientation), for which a significant effect on victimisation was expected but was not supported, the answer could be the distribution of the sample. In specific, most of the participants were from the UK, with a white background and heterosexual. Consequently, it is possible that different results could have occurred with a more broad and inclusive sample. Moreover, previous research (Fox & Stallworth, 2005) has shown that belonging to minority ethnic group increases the odds of becoming an SB victim. Though, no such effect was found here, still 30.1% of victims reported that they were victimised because they were different, thus it could be assumed that ethnicity could play a role the participants from this sample considered it as a difference.

For SB perpetration, it was assumed that Ethnicity, Religion, Sexual orientation, Having a disability, Mental health and Physical health are not significant factors for SB perpetration, whereas Age and Gender are significant factors for SB perpetration. To test the formulated assumptions, the same aforementioned predictors were examined with multinomial regression because SB perpetration occurrence had

three categories (yes, no, sort of). More details of the reason for this difference between SB victimisation occurrence variable and SB perpetration occurrence variable are given at the end of the thesis under the limitations section. The overall model of the multinomial regression was significant, suggesting that the factors have an effect on the odds of becoming an SB perpetrator. Nonetheless, when each factors was further examined, only age and gender functioned as significant predictors. Meaning that an increase in age and being male would increase the odds of becoming an SB perpetrator. Finally, a linear model was used with the same predictors in order to explore further SB perpetration intensity. Again, the overall model resulted significant; indicating that approximately 8% of the variance in SB Perpetration intensity is explainable by the predictors. However, once more only age and male for gender significantly predicted an increase in SB Perpetration intensity. Consequently, accepting both the third and fourth assumptions.

Perhaps age does not predict SB victimisation occurrence, but it predicts SB perpetration occurrence. As shown in the third model that looked into SB perpetration occurrence and the aforementioned factors, an increase in age would increase the odds of becoming an SB perpetrator; thus agreeing with Chaux and Castellanos (2015; 2014;) in this aspect. Age had also an effect on SB perpetration intensity, indicating that as perpetrators get older the more bullying means they use, and the more severe the perpetration becomes. However, the age related results must be interpreted with caution as the participants' age was reported for the period of the survey completion while the bullying experiences were measured retrospectively for when participants were at school and living with their parents and had been involved in bullying incidents. Regardless, it is not known whether the university level participants reported their bullying experiences during university attendance or retrospectively,

while they could still be living with their parents. In addition, even with this limitation, it can be assumed that memory did not play a role as participants reported significant rates of bullying. Perhaps, future studies should account for this limitation and clarify this in their survey.

Even though gender as a factor for victimisation occurrence and victimisation intensity was not significant, nonetheless, it was significant for SB perpetration occurrence and perpetration intensity. In fact, the findings agree with previous research (Von Marées & Petermann, 2010) that suggested males as more involved in perpetration while using more direct means of bullying. This explains the findings in this thesis that showed that being a male increases the odds of becoming an SB perpetrator and using more intense means of bullying.

Going back to Ethnicity, once more it had no effect on SB perpetration. However, from this sample 14.3% of perpetrators victimised their victims because they perceived them as different. Therefore, if we were to consider that belonging to an ethnic minority as a difference then it may well be that ethnicity has an effect but it might not be as significant as other factors. In addition, it must be kept in mind that being a racist nowadays either is frowned upon or is illegal. Therefore, it may well be that participants did not want to admit racism. Likewise religion had no effect on SB perpetration or perpetration intensity, however as the majority of the participants were atheists, it could be assumed that data distribution could have an effect; nonetheless, the findings agree in this aspect with the limited previous literature on this matter.

Finally, sexual orientation, disabilities, mental health, and physical health, showed no effect on any of the dependent variables. Therefore, findings from this project could disagree with previous research (Cénat, et al., 2015; Christensen, et al., 2012; Turcotte Benedict, et al., 2015; Annerbäck et al., 2014; Fox & Farrow, 2009)

that suggested the above factors as influential in terms of SB involvement. However, it must be noted that these aspects may well be considered as differences. If that is the case then a respectable percentage (30.1%) of victims could have been targeted because of the above factors with a lower percentage (14.3%) targeting others because of these aspects. It must also be taken into account that participants that differentiated in terms of the above factors were not the majority (89.4% heterosexual, 86.9% no disabilities, 69.4% no mental health issues, and 84.9% no physical health issues). Therefore, it may well be that results were non-significant for both SB victimisation and perpetration, because of the limited sample size; consequently it is advised to researchers that want to further examine the above factors to use a more focused on these aspects sample.

### **5.13. Conclusion**

In this chapter, the background rigid factors were examined and tested for any predictive effect on SB victimisation and perpetration. From the eight risk/preventive factors, only religion and particularly atheism predicted victimisation, whereas only age and gender showed an effect on SB perpetration. The difference comes in terms of an increase or a decrease of SB, as more engagement in religion and religious beliefs decrease victimisation, thus atheism functions as risk factor; whereas an increase in age and being male function as risk factors for SB perpetration. The rest of the tested variables showed no significant effects, though the distribution of the sample could have played a role. Finally, it is possible that these effects are mediated by other factors, such as family related variables, which are explored in detail in the next chapter.

## ***Chapter 6 -Factors Related to Family/friend Environment and SB***

### **6.1. Parent Connectedness, Communication and SB**

After examining the rigid background factors, comes the examination of factors related to family and friend environment, which in a way are easier manipulated for anti-bullying strategy inclusion, in comparison to the socio-demographic factors. Starting with parents who are rarely involved in anti-bullying strategies (Cross & Barnes, 2014), therefore leading to parental ignorance (Mann, Kristjansson, Sigfusdottir & Smith, 2015). Nonetheless, parent-children connectedness, parents' involvement in children's lives, and parent-children communication, have been deeply studied in relation to bullying (Matsunaga, 2009; Loukas & Pasch, 2013). For example, Wienke Totura, MacKinnon-Lewis, Gesten, Gadd, Divine... and Kamboukos (2009; 2008) concluded after their research that there should be boundaries between parents and children in regards to parents' involvement in children's lives. Mainly, because if parents are overprotective, intrusive and coercive in the parenting style they could increase the risk for their offspring's victimisation, while lack of parental warmth and support would put children at more risk for perpetration. Some authors (Atik & Güneri, 2013) found associations between low parental strictness/supervision and the likelihood of being a victim, and equally between low parental acceptance/involvement, strictness/supervision, and the likelihood of being a bully or a victim. Morin, Bradshaw and Berg (2015) reported that parent engagement was associated with

reduced internalising problems among relationally victimised boys. In addition it was found that parents' perspectives on SB differentiates from children's perspective (Holt, Kaufman Kantor & Finkelhor, 2009), in such a way that often parents are not aware of their children's involvement in either perpetration or victimisation; however family support and support in general was presented as a protective factor for victimisation (Duong & Bradshaw, 2014). Consequently, it is deemed appropriate for inclusion in this project.

## **6.2. Type of Parenting and SB**

Parental communication, involvement and monitoring are considered aspects of parenting style (Van der Watt, 2014). In general, literature showed that parenting styles that include support, affection and communication reduce SB perpetration and victimisation (Aslan, 2011; Rajendran, Kruszewski & Halperin, 2016), while discipline with psychological control (Gómez-Ortiz, Del Rey, Casas & Ortega-Ruiz, 2014) and parental psychological aggression pose as risk factors for victimisation (Gómez-Ortiz, Romera & Ortega-Ruiz, 2016).

## **6.3. Sibling Connectedness, Communication and SB**

Research on sibling support and SB is limited (Bourke & Burgman, 2010); Regardless, Bowes et al. (2010) reported that family factors, such as maternal warmth and sibling warmth, were associated with children's resilience to SB victimisation. Others (Hadfield, Edwards & Mauthner, 2006) had earlier reported that having a sibling at school is a source of support when they are victimised, while at the same time some students considered that their siblings were liabilities at school. Interestingly, the eldest siblings found the "duty" to protect the younger sibling as a negative responsibility and longed for sibling separateness during school hours, while younger siblings longed for exactly the opposite and expected protection from their

older siblings. Considering that most research conducted on family environment in relation to SB is focused on parents, it is apparent that the possible effect of siblings on SB is in need for more exploration.

#### **6.4. Sibling Teasing and SB**

Most of research conducted on bullying was mainly focused on SB, CB, workplace bullying, but what happens at home is equally important. Some studies (Hoetger, Hazen & Brank, 2015) showed that sibling teasing or bullying is quite common and perhaps even more common than peer bullying. Moreover, Krienert and Walsh (2011) mentioned that sibling bullying, also referred, as sibling violence has been the least examined form of family violence. Tucker, Finkelhor, Turner and Shattuck (2014) examined how victimisation by either a sibling or peer are linked to each other, and found that 15% of their sample reported victimisation by both a sibling and peer; with victimisation by siblings being more common in childhood than adolescence, and sibling victimisation predicting peer victimisation. Finally, other studies (Skinner & Kowalski, 2013) reported rates of sibling victimisation up to 78% and perpetration up to 85%. Taking into account that this field is understudied, it is concluded that more research is required, thus examined in detail in this thesis.

#### **6.5. Friendship Quality, Connectedness, Communication and SB**

The association between friendship quality and SB was commonly found in literature, and findings appeared congruent. In general, literature showed that friendship quality moderates children's behaviour with a tendency for externalising problems in the form of bullying, while protects them from peer victimisation (Bollmer et al., 2005; Kendrick, Jutengren & Stattin, 2012; Woods, Done & Kalsi, 2009). Others (Jantzer, Hoover & Narloch, 2006) indicated an association between higher levels of perceived bullying with lower levels of friendship satisfaction and

vice versa; while Mishna, Wiener and Pepler (2008) advised that friends are often the source of SB victimisation. Taking into account previous literature, it is decided that the role of friends and a possible effect on SB, requires further exploration, therefore is included in the analysis of this thesis.

### **6.6. Parents, Siblings and Friends as Factors for SB and the Related Hypotheses**

After examining the limited literature on parents, siblings and friends of individuals involved in SB and how the related factors to these groups impact SB, it became apparent that, the focus was mainly on victimisation and only a handful of studies have paid attention to perpetrators. Regardless, the literature provides a direction regarding the expectations from the analysis of this chapter, and these are presented below.

1. Parents-related aspects, such as a friendly relationship, parenting style and support function as protective factors for SB victimisation.
2. Siblings-related aspects function as protective factors for SB victimisation.
3. Sibling teasing functions as a risk factor for SB victimisation.
4. Friends/friendships function as a double standard factor, both as a protective factor for SB victimisation and a risk factor for SB perpetration.
5. For SB perpetration in relation to the parents/siblings variable groups, the analysis functioned more as exploratory due to lack of a clear direction from the literature. Consequently no predictions are formulated, although it is assumed that aspects such as a friendly relationship with parents and siblings could protect from SB perpetration.

### **6.7. Results**

#### ***Descriptive Statistics***

*Parents:* The majority of participants ( $n = 322$ , 79%) reported that they had/have a friendly relationship with parents, while the most observed parenting style was permissive ( $n = 292$ , 72%). In most instances ( $n = 233$ , 57%) participants reported that they communicate with their parents and in most cases ( $n = 248$ , 61%) their parents know most of what is going on in participants' lives. Moreover, the majority ( $n = 284$ , 70%) of participants reported that their parents support them and engage with them in various activities ( $n = 188$ , 46%). Furthermore, in most of the cases ( $n = 146$ , 36%) parents knew when a participant skipped school, and knew their children's friends ( $n = 287$ , 70%).

*Siblings:* Regarding siblings, 369 (90%) participants had at least one sibling ( $M = 2$ ,  $SD = 1.47$ ,  $Min = 0$ ,  $Max = 10$ ) with which they had a friendly relationship ( $n = 264$ , 65%). The majority of participants ( $n = 213$ , 52%) that had siblings reported that their siblings are supportive, but also teased them at home ( $n = 197$ , 48%). In most cases ( $n = 193$ , 47%) where participants encountered sibling teasing, their parents were aware of the teasing. From the parents that became aware of the sibling teasing, the intervention means are presented below in Table 6.7.1.

Table 6.7.1. *Parents' intervention means for sibling teasing.*

Parents' intervention means for sibling teasing.	Frequencies
Responded in more than one ways	51 (12.6%)
Teased the participants as well	45 (11.1%)
Told the participant to get over it	43 (10.6%)
Discussed the event	40 (9.9%)
Set rules	31 (7.7%)
Punished the teaser	26 (6.4%)
The remaining reported parents' reactions such as ignored it, didn't react, left it up to the children, and did not pay much attention to it since they perceived it as naïve teasing between siblings.	<2%

*Friends:* Regarding friends and friendships, the majority ( $n = 369$ , 90%) reported that they had/have friends and many reported having close friends ( $M = 5$ ,  $SD = 6.2$ ,  $Min = 0$ ,  $Max = 100$ ). The majority ( $n = 250$ , 61%) of these friends

were/are aware of most of what is going on in participants' lives and most of these friends ( $n = 320$ , 78%) were/are supportive. Frequencies and percentages are presented in Table 6.7.2 and 6.7.3 in appendix B.

***Inferential Statistics:*** Regression models were attempted in order to explore the possible effect of the independent variables to the depended variables. The independent variables were: friendly relationship with parents, parenting style, parental communication with the children, parental awareness of what is happening to their children's lives, parental support, parental engagement, parental awareness if children skipped school, whether participants have siblings, what number of siblings participants have, relationship between the siblings, sibling support, sibling teasing, parental awareness of sibling teasing, whether participants have friends, how many friends participants perceive as close friends, friends' awareness of what is going on participants' lives, support from friends and parental awareness of participants' friends. The dependent variables were: SB victimisation occurrence, perpetration occurrence, victimisation intensity and perpetration intensity. However, because less than one third of the factors resulted in non-significant findings, Chi Square of Independence was run between each independent variable and SB occurrence, and Kruskal Wallis test with SB intensity; the significant predictors were then entered in the regression models. Relevant assumptions were taken into consideration and Fisher's exact test was reported were appropriate (see McHugh, 2013).

***Independent Variables Related to Parents and SB Victimisation Occurrence:*** Starting with the independent variables related to parents, results from the Chi-Square Test of Independence, showed that only a friendly relationship with parents ( $\chi^2(2) = 12.42, p = .002$ ) (see Table 6.7.4 in appendix B), and parental support are related to SB victimisation ( $\chi^2(2) = 10.70, p = .005$ ) (see Table 6.7.5 in appendix B).

*Independent Variables Related to Parents and SB Perpetration Occurrence:*

For SB perpetration occurrence and the independent variables, the Chi-Square Test of Independence was significant only for friendly relationship with parents ( $\chi^2(4) = 9.84$ ,  $p = .043$ , Fisher's exact two tailed test = 8.27,  $p = .06$ ) (see Table 6.7.6 in appendix B). However, the variable will enter the regression model as the significance was relatively close to the cut off point of the .05 p value.

*Independent Variables Related to Parents and SB Victimization Intensity:*

Next, a series of Kruskal Wallis (see Conover & Iman, 1981) tests were conducted to examine significant differences between the independent variables related to parents and SB victimisation and perpetration intensity. The results of the Kruskal-Wallis test for SB victimisation intensity, were significant for friendly relationship with parents and ( $\chi^2(2) = 18.98$ ,  $p < .001$ ) (see Table 6.7.7, Figure 6.7.1 and Table 6.7.8 in appendix B), parenting style ( $\chi^2(3) = 13.80$ ,  $p = .003$ ) (see Table 6.7.9, Figure 6.7.2 and Table 6.7.10 in appendix B), parental support ( $\chi^2(2) = 9.95$ ,  $p = .007$ ) (see Table 6.7.11, Figure 6.7.3 and Table 6.7.12 in appendix B).

*Independent Variables Related to Parents and SB Perpetration Intensity:* For SB perpetration intensity, results were significant only for friendly relationship with parents ( $\chi^2(2) = 6.88$ ,  $p = .032$ ) (see Table 6.7.13 and Figure 6.7.4).

*Independent Variables Related to Siblings and SB Victimization Occurrence:*

Results from the Chi-Square Test of Independence showed that only sibling teasing and SB victimisation occurrence are related to one another ( $\chi^2(1) = 7.33$ ,  $p = .007$ ) (see Table 6.7.14 in appendix B).

*Independent Variables Related to Siblings and SB Perpetration Occurrence:*

For SB perpetration occurrence, results were significant for only having siblings

$(\chi^2(2) = 7.36, p = .025$ , Fisher's exact two tailed test = 6.33 with a  $p = .042$ ) (see Table 6.7.15 in appendix B)..

*Independent Variables Related to Siblings and SB Victimization Intensity:* On the other hand, the Kruskal Wallis tests showed that results were significant for sibling support ( $\chi^2(2) = 7.62, p = .022$ ) (see Table 6.7.16., Figure 6.7.5. and Table 6.7.17 in appendix B), sibling teasing,  $\chi^2(1) = 4.94, p = .026$  (see Table 6.7.18, Figure 6.7.6 and Table 6.7.19 in appendix B), and parental reaction to sibling teasing ( $\chi^2(7) = 14.26, p = .047$ ) (see Table 6.7.20, Figure 6.7.7 and Table 6.7.21 in appendix B), in relation to victimisation intensity.

*Independent Variables Related to Siblings and SB Perpetration Intensity:* Whereas, for SB perpetration intensity, none of the independent variables showed any significant results.

*Independent Variables Related to Friends and SB Victimization Occurrence:* No significant results were found from the Chi Square of Independence in relation to SB victimisation occurrence.

*Independent Variables Related to Friends and SB Perpetration Occurrence:* As for SB perpetration occurrence, only whether friends are aware of what is going on in perpetrators' lives ( $\chi^2(6) = 16.49, p = .011$ , Fisher's exact two tailed test = 14.07,  $p = .044$ ) appeared significant (see Table 6.7.22. in appendix B).

*Independent Variables Related to Friends and SB Victimization – Perpetration Intensity:* Results from the Kruskal-Wallis rank sum test in relation to SB victimisation intensity and perpetration intensity were not significant.

*Regression Model for Family/Friend Significant Factors and SB Victimization Occurrence:* A binary logistic regression was conducted to examine whether friendly relationship with parents, parental support, and sibling teasing had a significant effect

on the odds of observing the Yes category of SB victimisation occurrence. The reference category for SB victimisation was No. Relevant assumptions were taken into account (see Table 6.7.23 in appendix B). The overall model was significant, ( $\chi^2(5) = 33.43, p < .001$ ), suggesting that friendly relationship with parents, parental support, and sibling teasing had a significant effect on the odds of observing the Yes category of SB victimisation occurrence, the McFadden's R-squared value was 0.07. Specifically, the regression coefficient for friendly relationship with parents was significant ( $B = -1.14, OR = 0.32, p = .001$ ), indicating that for a one unit increase in friendly relationship with parents, the odds of observing the Yes category of SB victimisation occurrence would decrease by approximately 68%. Likewise, the regression coefficient for sibling teasing was significant ( $B = 0.69, OR = 1.99, p = .003$ ), signifying that for a one unit increase in sibling teasing, the odds of observing the Yes category of SB victimisation occurrence would increase by approximately 99% (see Table 6.7.24).

Table 6.7.24. *Logistic Regression Results with Friendly relationship with parents, Parental support, and Sibling teasing Predicting SB Victimization occurrence.*

Variable	<i>B</i>	<i>SE</i>	$\chi^2$	<i>p</i>	<i>OR</i>
(Intercept)	1.06	0.53	3.95	.047	
Friendly relationship with parents No	-0.14	0.64	0.05	.820	0.87
Friendly relationship with parents Yes	-1.14	0.35	10.47**	.001	0.32
Parental support Sort of	-0.86	0.48	3.22	.073	0.43
Parental support Yes	0.07	0.43	0.03*	.873	1.07
Sibling teasing Yes	0.69	0.23	8.92	.003	1.99

Note.  $\chi^2(5) = 33.43, p < .001$ , McFadden  $R^2 = 0.07$ .

#### *Regression Model for Family/Friend Significant Factors and SB Victimization*

*Intensity:* Next a linear regression analysis was conducted to assess whether friendly relationship with parents, parenting style, parental support, sibling support, sibling teasing, and parental reaction to sibling teasing significantly predicted SB victimisation intensity (see Figure 6.7.8. in appendix B, Table 6.7.25. and Figure

6.7.10 in appendix B). The results of the linear regression model were significant ( $F(16,171) = 2.51, p = .002, R^2 = 0.19$ ), indicating that approximately 19% of the variance in SB victimisation intensity is explainable by friendly relationship with parents, parenting style, parental support, sibling support, sibling teasing, and parental reaction to sibling teasing. Only the Yes category of friendly relationship with parents significantly predicted victimisation intensity ( $B = -2.29, t(171) = -2.98, p = .003$ ). Based on this sample, this suggests that moving from the Kind of to Yes category of friendly relationship with parents will decrease the mean value of victimisation intensity by 2.29 units on average (see Table 6.7.26).

Table 6.7.26. Results for Linear Regression with Friendly relationship with parents, Parenting style, Parental support, Sibling support, Sibling teasing, and Parental reaction to sibling teasing predicting SB victimisation intensity.

Variable	B	SE	95% CI	$\beta$	t	p
(Intercept)	9.12	2.06	[5.05, 13.19]	0.00	4.42	.001
Friendly relationship with parents No	-1.07	1.22	[-3.47, 1.34]	-0.07	-0.88	.382
Friendly relationship with parents Yes	-2.29	0.77	[-3.81, -0.78]	-0.27	-2.98*	.003
Parenting style Permissive	-0.16	0.64	[-1.43, 1.10]	-0.02	-0.25	.801
Parenting style Uninvolved	1.50	0.88	[-0.24, 3.23]	0.15	1.71	.090
Parental support Sort of	-0.76	0.95	[-2.63, 1.11]	-0.09	-0.80	.425
Parental support Yes	0.14	0.81	[-1.45, 1.74]	0.02	0.18	.860
Sibling support Sort of	-1.28	0.79	[-2.84, 0.28]	-0.17	-1.62	.107
Sibling support Yes	-1.21	0.77	[-2.72, 0.31]	-0.18	-1.57	.117
Sibling teasing Yes	-1.46	1.37	[-4.16, 1.24]	-0.08	-1.07	.288
Parental reaction to sibling teasing Discussed the event with us	-2.11	1.39	[-4.87, 0.64]	-0.25	-1.52	.131
Parental reaction to sibling teasing It was a family joke, normal behaviour between siblings	-3.14	1.68	[-6.45, 0.17]	-0.20	-1.87	.063
Parental reaction to sibling teasing More than one from the list	-1.44	1.36	[-4.12, 1.24]	-0.18	-1.06	.290
Parental reaction to sibling teasing Punished my sibling	-1.26	1.43	[-4.07, 1.56]	-0.12	-0.88	.380
Parental reaction to sibling teasing Set rules about teasing	-0.99	1.50	[-3.94, 1.97]	-0.09	-0.66	.511
Parental reaction to sibling teasing Teased me as well	-1.18	1.44	[-4.03, 1.67]	-0.12	-0.82	.416
Parental reaction to sibling teasing Told me to get over it	-1.46	1.33	[-4.09, 1.16]	-0.17	-1.10	.273

Note. Results:  $F(16,171) = 2.51, p = .002, R^2 = 0.19$

Unstandardized Regression Equation: Victimization intensity = 9.12 - 1.07\*Friendly relationship with parents No - 2.29\*Friendly relationship with parents Yes - 0.16\*Parenting style Permissive + 1.50\*Parenting style Uninvolved - 0.76\*Parental support Sort of + 0.14\*Parental support Yes -

1.28\*Sibling support Sort of - 1.21\*Sibling support Yes - 1.46\*Sibling teasing Yes - 2.11\*Parental reaction to sibling teasing Discussed the event with us - 3.14\*Parental reaction to sibling teasing It was a family joke, normal behaviour between siblings - 1.44\*Parental reaction to sibling teasing More than one from the list - 1.26\*Parental reaction to sibling teasing Punished my sibling - 0.99\*Parental reaction to sibling teasing Set rules about teasing - 1.18\*Parental reaction to sibling teasing Teased me as well - 1.46\*Parental reaction to sibling teasing Told me to get over it

### *Regression Model for Family/Friend Significant Factors and SB Perpetration*

*Occurrence:* Moreover, a multinomial logistic regression analysis was conducted to assess whether friendly relationship with parents, siblings, and friends awareness had a significant effect on the odds of observing each response category of SB perpetration occurrence relative to No (see Table 6.7.27 in appendix B). The results of the multinomial logistic regression model were significant ( $\chi^2(12) = 26.57, p = .009$ ), suggesting that friendly relationship with parents, siblings, and friends awareness had a significant effect on the odds of observing at least one response category of SB perpetration occurrence relative to No, the McFadden's R-squared value was 0.05. Since the overall model was significant, each predictor was examined further. The regression coefficient for friendly relationship with parents No in response category Sort of, of SB perpetration occurrence was significant ( $B = 1.68, \chi^2 = 5.54, p = .019$ ), suggesting that a one unit increase in not having a friendly relationship with parents would increase the odds of observing the Sort of category of SB perpetration occurrence relative to No by 439.01%. The regression coefficient for having siblings in response category "Sort of" of SB perpetration occurrence was significant ( $B = -1.19, \chi^2 = 6.55, p = .010$ ), suggesting that a one unit increase in having siblings would decrease the odds of observing the Sort of category of SB perpetration occurrence relative to No by 69.63%. The regression coefficient for friends awareness "They don't know anything about what is going on in your life" in response category Yes of SB perpetration occurrence was significant ( $B = 2.43, \chi^2 = 8.07, p = .005$ ). Suggesting that a one unit increase in friends awareness "They don't know anything about what is

going on in your life” would increase the odds of observing the Yes category of SB perpetration occurrence relative to No by 1037.96% (see Table 6.7.28).

Table 6.7.28. *Multinomial Logistic Regression Table with SB Perpetration occurrence predicted by Friendly relationship with parents, Siblings, and Friend awareness*

Variable	Response	B	SE	$\chi^2$	p	OR
(Intercept)	Sort of	-0.97	0.69	1.97	.160	
Friendly relationship with parents No	Sort of	1.68	0.72	5.54*	.019	5.39
Friendly relationship with parents Yes	Sort of	-0.15	0.53	0.08	.782	0.86
Siblings Yes	Sort of	-1.19	0.47	6.55*	.010	0.30
Friends awareness Most of what is going on in your life	Sort of	-0.34	0.43	0.63	.428	0.71
Friends awareness Only the serious things	Sort of	-0.12	0.67	0.03	.863	0.89
Friends awareness They don't know anything about what is going on in your life	Sort of	0.97	1.23	0.62	.430	2.63
(Intercept)	Yes	-1.79	0.75	5.68*	.017	
Friendly relationship with parents No	Yes	0.67	0.77	0.74	.389	1.95
Friendly relationship with parents Yes	Yes	-0.29	0.45	0.43	.513	0.75
Siblings Yes	Yes	-0.15	0.58	0.07	.798	0.86
Friends awareness Most of what is going on in your life	Yes	-0.06	0.44	0.02	.895	0.94
Friends awareness Only the serious things	Yes	0.52	0.59	0.77	.380	1.68
Friends awareness They don't know anything about what is going on in your life	Yes	2.43	0.86	8.07*	.005	11.38

Note.  $\chi^2(12) = 26.57$ ,  $p = .009$ , McFadden  $R^2 = 0.05$ .

#### *Regression Model for Family/Friend Significant Factors and SB Perpetration*

*Intensity:* Finally, a linear regression analysis was conducted to assess whether friendly relationship with parents significantly predicted SB perpetration intensity; however, results were non-significant.

### **6.8. Chapter 6 Discussion**

This chapter looked at the possible effects of factors related to parents, siblings and friends on SB victimisation, perpetration, victimisation intensity, and perpetration intensity. The independent factors were: friendly relationship with

parents, parenting style, parental communication with the children, parental awareness of what is happening to their children's lives, parental support, parental engagement, parental awareness if children skipped school, whether participants have siblings, what number of siblings participants have, relationship between the siblings, sibling support, sibling teasing, parental awareness of sibling teasing, whether participants have friends, how many friends participants perceive as close friends, friends' awareness of what is going on participants' lives, support from friends, parental awareness of participants' friends, on SB victimisation, perpetration, victimisation intensity, perpetration intensity. An attempt was made to run regression analysis directly with all the factors but the model included too many non-significant factors, therefore, each factor was firstly studied for relationships in terms of SB occurrence, and differences in terms of SB intensity. The factors that showed significance in relation to SB were entered into regression models.

***Parents-related factors:*** In terms of SB victimisation, it was expected to see that Parents-related aspects, such as a friendly relationship, parenting style and support function as protective factors for SB victimisation. The preliminary analysis showed that only a friendly relationship with parents and parental support appeared related to SB victimisation occurrence. Therefore, entered the regression model, which revealed that by having a friendly relationship with parents, the odds of SB victimisation occurring significantly decrease. Consequently, partially meeting the first expectation set in section 6.6, as not all parents-related aspects prevent victimisation. Nonetheless, the findings agree with previous research that informed that a good relationship with parents is a protective factor for victimisation (Duong & Bradshaw, 2014). Similar findings were shown from the Kruskal-Wallis series of tests, which showed significant differences in terms of SB victimisation intensity,

between the levels of friendly relationship with parents, parenting style and parental support. The results agree with others (Aslan, 2011; Rajendran, et al., 2016) who showed that parenting styles have an effect on SB victimisation. Regardless, when the aforementioned factors entered the linear regression model, only by having a friendly relationship with parents, children and adolescents are significantly protected by more intense SB victimisation. The latter had been previously supported by Duong and Bradshaw (2014), who emphasised the importance of parents providing support to their children when it comes to preventing SB victimisation, but also when intervening if victimisation occurs.

For SB perpetration, there were not set any particular expectations from the current analysis, as the literature did not indicate a direction for specific hypotheses. Nonetheless, the statistical exploration found that SB perpetration occurrence and friendly relationship with parents are related to one another, while the regression model indicated that not having a friendly relationship with parents significantly increases the odds of SB perpetration occurring, therefore posing a risk for bullying behaviour. The findings in a way agree with previous literature (Wienke Totura, et al., 2009; 2008) that concluded that lack of parental warmth could put children at more risk for perpetration, if we were to consider that parental warmth includes support.

***Siblings-related factors:*** The next examined variables were the ones related to siblings (whether participants have siblings, what number of siblings participants have, relationship between the siblings, sibling support, sibling teasing, parental awareness of sibling teasing). It was expected that siblings-related aspects would appear to function as protective factors for SB victimisation, whereas sibling teasing would pose a risk for SB victimisation. However, in terms of the second expectation from section 6.6, the analysis showed no significant relationships for SB

victimisation. The present findings do not support previous literature (Hadfield, et al., 2006; Skinner & Kowalski, 2013) that suggested sibling support as a protective factor for SB victimisation. It may well be that having a sister or a brother, does not necessarily mean that protection from SB victimisation is automatically provided; some siblings may find that responsibility as a burden while as it is shown below, frequently the perhaps innocent teasing resulting from siblings poses a risk for victimisation. After all, the results indeed showed that sibling teasing and SB victimisation occurrence are related to one another, while also sibling teasing increases the odds of becoming SB victimised. However, it has to be noted that when it comes to SB victimisation intensity, the results differentiate, as there were found significant differences between the levels of sibling support, in addition to sibling teasing and the parental reaction to sibling teasing. However, the latter aforementioned factors did not predict SB victimisation intensity. Regardless, it has to be noted that sibling teasing may not be as naïve as some parents may believe and although sibling support may not be related to SB victimisation occurring, it is related to victimisation intensity. Such results could imply that victimisation might occur regardless of the possible sibling support, but when it comes to repetitive and intense victimisation, sibling support is of importance. However, that support is frequently not provided, as it was shown in the literature (Hadfield, et al., 2006). Therefore, indicating the necessity of parents teaching their children to support each other and form strong healthy relationships.

In terms of SB perpetration, once more, due to the limited literature on the subject, no particular direction was expected. The analysis showed that SB perpetration occurrence and whether perpetrators had siblings are related to one another, while in addition having siblings functions as a protective factor for SB

perpetration occurring. It may be possible that by having siblings, perpetrators find support when frustrated; or if a perpetrator has more than one sibling then the support may be greater. Therefore, perpetrators may not have the need to express their frustration negatively at school. Regardless, apart from the aforementioned factor, no other siblings-related factors, including sibling teasing, showed any significant relationships, differences or predictive effects. Consequently, disagreeing with Hadfield, et al. (2006) and Skinner and Kowalski (2013) that suggested sibling bullying or teasing as a risk factor for SB perpetration.

***Friends-related factors:*** Finally, in terms of the variables related to friends and friendships, it was expected to find that friends/friendships both protect from SB victimisation and pose a risk for SB perpetration. However, the analysis showed that none of the variables were neither significantly associated to SB victimisation occurrence, nor indicated any significant differences in terms of victimisation intensity. Therefore, rejecting the idea and expectation no four from section 6.6 that friends/friendships function as a double standard factor. However, the results of the Chi-Square test showed that SB perpetration intensity and friends knowing what is going on in perpetrators' lives are related to one another. While in addition, it was found that when friends do not know anything about what is going on in their perpetrator/friend's life, the odds of SB perpetration occurring significantly increase. Such results indicate that the less friends know about what is going on in perpetrators' lives the more the chances of perpetrators acting out their negative behaviour on victims. That may be because perpetrators also need guidance and support, but if their friends are not aware of perpetrators' personal endeavours, then that support is not provided. Therefore, in a way there is concordance with previous studies (Bollmer et

al., 2005; Kendrick, et al., 2012; Woods, et al., 2009) that indicated supportive friends and friendship quality as protective factors.

## **6.9. Conclusion**

This chapter examined factors that are related to family and friend environment. In a summary it was found that from all the related examined factors, only having a friendly relationship with parents protects from SB victimisation, whereas not having a friendly relationship with parents increases the odds for SB perpetration. In terms of siblings, it was found that although by having siblings the odds of SB perpetrating decrease, nonetheless sibling-teasing increases the likelihood of becoming SB victimised. Finally, when examining the friends-related factors, it was shown that it is of high importance for friends to know what experiences and events occur in their peer's lives, as not knowing anything poses a risk for SB perpetration. Concluding this chapter, it has to be taken into account that, there may be individual differences in terms of personality, which could potentially play a role in those relationships and predictions. Such personality and behavioural factors are examined next in chapter seven.

## ***Chapter 7 - Personality and Behavioural Factors and SB***

### **7.1. Empathy and SB**

The current chapter examines in detail personality and behavioural factors, considering that individual differences in terms of the aforementioned, could potentially play a role in SB victimisation or perpetration. Starting with the well-studied (Espelage, Green & Polanin, 2012; Einolf, 2012; Mitsopoulou & Giovazolias, 2015) aspect of empathy, and specifically the relationship between understanding others' emotions, which is a basic issue in human evolution (Smith, 2006; Singer & Lamm, 2009). Despite the frequent referral to empathy in plentiful studies, the fact that empathy consists two aspects is often neglected; these aspects are cognitive empathy, which refers to the ability to identify and understand other peoples' emotions, and affective empathy, which refers to the feelings we experience in response to others' emotions (Jolliffe & Farrington, 2006). Regardless, in general, literature appears congruent in supporting low empathy as associated with bullying behaviour and particularly by males (Jolliffe & Farrington, 2006). In particular, Stavrinides et al. (2010) reported that a negative relationship exists between a child's ability to be in touch with what another person feels and the tendency of this child to victimise others, although only affective empathy might play a role in this association. Others (Muñoz, Qualter & Padgett, 2011; Ciucci & Baroncelli, 2014) concluded that failing to care about others is more important than empathy, specifically for explaining the direct and indirect bullying. In term of sex differences, the affective empathy is associated to bullying for males but not for females (Jolliffe, & Farrington, 2011; Topcu & Erdur-Baker, 2012). While also when considering age, Khanjani,

Mosanezhad Jeddi, Hekmati, Khalilzade, ... and Ashrafian (2015), revealed that affective empathy increases with age. A common finding amongst the studies was that victimisation is negatively associated with cognitive empathy but not with affective empathy (Noorden, Haselager, Cillessen &Bukowski, 2015). While, studies (Garandeau, Vartio, Poskiparta, & Salmivalli, 2016) that tried to understand what works in terms of using empathy in anti-bullying methods, advised that attempts at making bullies feel empathy for the victim and condemning their behaviour both increase bullies' intention to stop their perpetration, while blaming the bully proved unsuccessful. Finally, taking into account previous literature, the importance of including empathy in an anti-bullying model is signified, consequently this factor is incorporated in the current project.

## **7.2. Self-esteem and SB**

Self-esteem as a factor for SB has been extensively studied (Rigby & Cox, 1996; Brito & Oliveira, 2013) and findings vary (Tsaousis, 2016); but self-esteem can be viewed as both an antecedent and a consequence of victimisation (McMahon, Reulbach, Keeley, Perry & Arensman, 2010; Drennan, Brown & Sullivan Mort, 2011). Some studies (Salmivalli, Kaukiainen, Kaistaniemi & Lagerspetz, 1999) informed that the association between self-esteem and SB was stronger for boys comparing girls; whereas, Karatzias, Power and Swanson (2002) identified that bullies exhibit higher levels of peer self-esteem than victims do. Other authors (O'Moore & Kirkham, 2001; Marini, Dane & Bosacki, 2006; Atik & Güneri, 2013) showed that both victims and bullies exhibit significantly lower global self-esteem than non-involved in bullying children. Literature also presented mediators in this association, such as physical appearance and body dissatisfaction (Fox & Farrow, 2009), sex differences with girls in the pure bully and bully/victim groups exhibiting

significant increases in self-esteem over time (Pollastri, Cardemil & O'Donnell, 2010). Finally, high narcissism combined with low self-esteem increases the likelihood for SB and contributes to the continuation of both perpetration and victimisation (Finally, Fanti & Henrich, 2015). As it can be seen, self-esteem is deeply studied, though the focus is more on the nature of the factor as a consequence of victimisation, which indicates the importance of further exploring self-esteem's possible preventive or risk effect on SB.

### **7.3. Aggression and SB**

Aggression has been proven to be a central reason for bullying involvement (Catanzaro, 2011; Ireland & Archer, 2004; Homel, 2013; Thornton, Frick, Crapanzano & Terranova, 2013), with boys engaging more in physical aggression and girls in verbal aggression (Craig, 1998). Some studies (Roland & Idsøe, 2001) informed that both proactive and reactive aggressiveness are related to SB perpetration, with proactive aggression showing a stronger association. However, it was pointed out that older individuals exhibit more proactive aggression in terms of SB perpetration while for victimisation this association is weak. In terms of how peers respond to aggression, Lee (2009) found that aggressive boys are likely to be rejected by peers, whereas aggressive girls are both rejected and accepted by peers; however, in general, bullying and physical aggression predict negative evaluations from peers (Lansu, Cillessen & Bukowski, 2013). Others (Rose, Simpson & Ellis, 2016) found sibling aggression as a strong factor for involvement in peer bullying, such as that victimisation by siblings significantly increases the odds of peer victimisation, and perpetrators of sibling aggression are more likely to be both peer bullies and bully-victims (Tippett & Wolke, 2015). It is evident that previous literature has indicated aggression as a risk factor for SB perpetration, however, there is no such clarity for

SB victimisation; therefore, demonstrating the significance of further exploring this factor in this thesis, but also its inclusion in the anti-bullying model.

#### **7.4. Anger and SB**

Although anger and aggression are often studied together (Gresham, Melvin & Gullone, 2016), nonetheless these two factors are different aspects; anger refers to the emotion one experiences (Kashdan, Goodman, Mallard & DeWall, 2015), while aggression refers to the act (Wilkowski & Robinson, 2008; 2007). Nonetheless, like aggression, anger also appears associated to perpetration and functions as a risk factor for perpetration (Hein, Koka & Hagger, 2015; Tanrikulu & Campbell, 2015; Bosworth, Espelage & Simon, 1999). Other studies (Smits & Kuppens, 2005) incorporated anger as a trait, and if one does not acquire the right coping skills then anger results in aggression (Ramírez & Andreu, 2006).

To address the association between anger and SB, Sigfusdottir, Gudjonsson and Sigurdsson (2010) indicated that the association between perpetration, victimisation, and delinquent behaviour was mediated by anger; and supported that there is a direct positive link between perpetration and anger. Likewise, others (Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012) agreed and added that anger is not only related to perpetration but also to victimisation. Whereas, Turner and White (2015) revealed that the highest levels of reactive aggression were observed to occur for men who are high on anger rumination, thus more perpetration, while the lowest levels of reactive aggression were found for women low on anger rumination. Likewise, Malik and Mehta (2016) supported that male students that are bullies experience more anger than girls do, suggesting a strong association between anger and SB but mostly for boys. Therefore, anger is also in need of inclusion in the current project, as it appears to affect both SB victimisation and perpetration.

## **7.5. Impulsivity and SB**

Impulsivity in association to SB has been examined in depth (Fanti & Kimonis, 2012; Erreygers, Pabian, Vandebosch & Baillien, 2016; Chen & Chng, 2016) and the general notion shows impulsivity as a strong factor for SB perpetration (Espelage, Bosworth & Simon, 2001; Oluyinka, 2008); with high impulsivity being related to all forms of bullying for both genders (Jolliffe & Farrington, 2011).

Impulsivity has been studied in other settings apart from schools. For example, Holland et al., (2009) explored bullying behavior among adult male prisoners, and showed that perpetration is associated with higher instrumental attributions and higher impulsivity than non-perpetration; however this study also showed that victims were more impulsive than non-victims with evidence that perpetration moderated this relationship, while bully/ victims were more impulsive, in relation to pure bullies. It can be seen that high levels of impulsivity function as risk factors for SB perpetration, whereas in terms of victimisation, literature shows only assumptions, consequently supporting a more detailed examination of the factor.

## **7.6. Self control and SB**

As seen in the previous section impulsivity is closely related to self-regulation or in other words, lack of self-control equals impulsivity (Archer & Southall, 2009). For example, Unnever and Cornell (2003) investigated the influence of low self-control and Attention-Deficit Hyperactivity Disorder (ADHD) on perpetration and victimisation, and reported that students who reported taking medication for ADHD were more likely to be bullied. Similarly, Archer and Southall (2009) informed that lack of self-control is associated with perpetration, while the same association was

weaker for victimisation. Others (Chui & Chan, 2013; Chui & Chan, 2015; 2014) indicated a negative association between perpetration and self-control, but showed no association with victimisation, whereas Moon and Alarid (2015) reported that youths with low self-control are likely to physically and psychologically bully. It is apparent that low self-control is considered a risk factor for perpetration, whereas for victimisation, the literature is non-directional. Consequently, suggesting the necessity for more examination of this factor.

### **7.7. Guilt and SB**

Moral emotions and particularly guilt and shame have also been examined as factors for SB (Ttofi & Farrington, 2008). Specifically, guilt involves a sense of tension, remorse, and regret over the bad action, while shame, is an acutely painful emotion that is typically accompanied by a sense of worthlessness and powerlessness (Menesini, Sanchez, Fonzi, Ortega, Costabile & Lo Feudo, 2003). Moreover, moral disengagement or low guilt is associated with SB perpetration, and could even result to bullies feel proud or indifferent for their actions. Others (Ahmed & Braithwaite, 2004) reported that bullies are less likely to acknowledge shame or experience guilt for wrongdoing and more likely to displace shame. Likewise, Menesini and Camodeca (2008) added that bullies do not sympathise with the victim, do not feel responsible for the harm caused, and therefore, do not experience guilt or shame in moral situations. Some researchers (Hooge, Nelissen, Breugelmans & Zeelenberg, 2011) supported that guilt can have beneficial effects for the victim but also disadvantageous effects for other people in the social environment if the perpetrator becomes excessively preoccupied with repairing the damage. This raises the question if guilt and shame should be enhanced or not in terms of SB intervention strategies. Ahmed and Braithwaite (2012) informed that shame management is supposed to be

part of the healing process that is a goal of restorative justice, and indicated that shame displacement and bullying tolerance accompanied transition into bullying, while shame acknowledgment and control of bullying marked desistence from bullying. Similarly, Olthof (2012) reported that guilt was positively related to prosocial behaviour, while less guilt was associated with increased age, and only shame before adults was negatively related to antisocial behaviour and positively to outsider behaviour. Others (Roberts et al., 2014) supported that guilt is correlated with empathy, thus anti-bullying strategies could succeed if these two aspects are combined. In terms of bystanders and assisting a victim when attacked by a bully, guilt seems negatively associated with bullying but positively with defending (Mazzone, Camodeca & Salmivalli; 2016a; Mazzone, Camodeca & Salmivalli, 2016b). The above literature clearly shows that low levels of guilt function as a risk factor for SB perpetration, whereas no such clarity is shown for SB victimisation, as a consequence the current factor is studied further in this project, in an attempt to address this research gap.

## **7.8. Morality and SB**

As shown in the previous section moral disengagement is associated with SB perpetration (Hymel & Bonanno, 2014; Sims-Schouten, 2015), however, guilt and shame are not the only emotions that constitute our moral values (Horton, 2011; Price, 2012; Menesini, Nocentini & Camodeca, 2013; Thompson, 2013). Findings in literature varied; some (Obermann, 2011) revealed that both self- reported and peer-nominated bullying were related to moral disengagement, and that both pure bullies and bully-victims displayed higher moral disengagement than non-involved in bullying children. Whereas, Perren and Gutzwiller-Helfenfinger (2012) indicated that a lack of moral values and a lack of remorse predicted both SB and CB. Likewise,

Pozzoli, Gini and Vieno (2012) used Bandura's set of moral disengagement mechanisms (i.e., cognitive restructuring, minimising one's agentive role, disregarding/distorting the consequences, blaming/dehumanising the victim) and reported a significant relationship between cognitive restructuring and individual pro-bullying behaviour. In addition, between-class variability of pro-bullying behaviour appears positively related to minimising one's agentive role and blaming/dehumanising the victim. Others (Caravita, Gini & Pozzoli, 2012) showed that both acceptance of moral transgression and moral disengagement are associated to SB among early adolescents only, whereas in childhood moral disengagement is linked to defending among girls. Similar projects concluded that popular children might be more likely to bully others because bullying is rewarded with keeping high-perceived popular status (Kollerová, Janošová & Říčan, 2015). Likewise, Thornberg and Jungert (2014) added the effect of gender and age, and reported that boys express significantly higher levels of moral justification, euphemistic labeling, diffusion of responsibility, distorting consequences, and victim attribution, compared to girls; as for age they found that younger children and girls are more likely to defend victims. Concluding, it can be seen that morality could function as a protective factor for SB perpetration, whereas no direction is provided in the literature for SB victimisation. As a result, this factor is equally in need for more research, and therefore included in this project.

### **7.9. Coping Skills/minimisation Strategy and SB**

The last factor that this chapter examines is the minimisation strategy. The general notion in literature is that emotionally oriented coping strategies put young students at higher risk for victimisation, and problem-solving strategies protect them (Baldry & Farrington, 2005; Konishi & Hymel, 2009; 2008). However, victims

usually use problem-focused coping strategies, with boys using externalising strategies with greater frequency than girls do, whereas girls seeking social support more often than boys (Hunter & Boyle, 2004; Tenenbaum, Varjas, Meyers & Parris, 2011; Garnett, Masyn, Austin, Williams & Viswanath, 2015). Ramirez (2013) reported identification of supportive systems, in-class strategies, thought cessation and redirection, and masking, as coping strategies, which are divided into preventive and reactive strategies. While Polan, Sieving and McMorris (2013) informed that interpersonal skills and stress management skills exhibit significant bivariate relationships with each of the bullying and violence outcomes; whereas, greater interpersonal skills and greater stress management skills are associated with lower odds of violence involvement. This latter finding that presented greater stress management skills as a protective factor for involvement in violence is of great importance, because it was later shown (Goldsmid & Howie, 2014) that distress predict higher levels of victimisation. In terms of perpetration only, Trémolière and Djeriouat (2016) revealed that a sadistic personality trait is associated with minimisation of the importance of harmful intent in moral judgment, or in other words minimisation strategy; the authors revealed that a sadistic personality trait predicted minimisation of the importance of causal mechanisms to harmful consequences in moral judgment. Once more, it is shown that there are limitations in the literature as there are no studies that have examined this factor in detail, while the handful studies that did, neglected the aspect of victimisation and focused only in perpetration. Thus, this last factor is tested with the rest aforementioned factors, attempting to address the research gap and provide more insightful information.

Concluding, it can be seen that the aforementioned factors have either been indicated as highly influential for SB involvement, or have been somehow neglected

by previous literature. By taking the latter into account, it is decided for all the above factors to be further explored in this thesis, based on the same sample; that way attempting to cover the research gaps, clarify literature inconsistencies, and include the significant factors in the resulting anti-bullying model.

### **7.10. Personality and Behavioural Factors – Related Hypotheses**

1. Empathy functions as a protective factor for both SB victimisation and perpetration. High self-esteem functions as protective factor for victimisation.
2. Aggression functions as risk factor for both SB victimisation and perpetration.
3. Anger functions as risk factor for both SB victimisation and perpetration.
4. High impulsivity functions a risk factor for SB perpetration.
5. Low self control functions as a risk factor for both SB victimisation and perpetration.
6. Guilt and aspects of guilt function as protective factors for SB perpetration, whereas for victimisation there is not set a directional expectation.
7. Morality functions as protective factor for SB perpetration, whereas there is not set a directional expectation for SB victimisation.
8. Minimization functions as risk factor for SB perpetration, whereas there is not set a directional expectation for SB victimisation.

### **7.11. Results**

***Descriptive Statistics:*** Before the analysis, the scales were explored in terms of descriptive statistics and Cronbach's alpha for this sample (see table 7.11.1 in appendix B for descriptive statistics). In terms of reliability, Cronbach alpha coefficients were calculated for the scales that had subscales and evaluated using the guidelines suggested by George and Mallery (2016); all factors showed an  $\alpha$  value over .60.

**Inferential Statistics:** Before entering the factors in a regression model, all the factors and the subscales were tested for significant correlations with SB victimisation intensity and perpetration intensity. Only the SB intensity was explored in this chapter; occurrence of SB was excluded on the basis that to have SB intensity SB occurrence is a requirement. All correlations were examined with Pearson's Product Moment coefficient and validated with Spearman's where appropriate. Cohen's standard was used to evaluate the strength of the relationship (Cohen, 1988; Conover & Iman, 1981).

*Empathy and SB Victimization-Perpetration Intensity:* In relation to SB victimisation intensity, correlation analysis showed that results were significant only for Emotional Contagion ( $r_p = -0.10, p = .049$ ) and Suffering ( $r_s = 0.10, p = .036$ ). In terms of SB perpetration intensity, results were significant for General Empathy Score ( $r_p = -0.15, p = .002$ ;  $r_s = -0.17, p < .001$ ), (see Figure 7.11.1.3. in appendix B), Suffering ( $r_p = -0.18, p < .001$ ;  $r_s = -0.17, p < .001$ ), Emotional Attention ( $r_p = -0.16, p = .002$ ;  $r_s = -0.15, p = .003$ ), Feel for Others and ( $r_p = -0.18, p < .001$ ;  $r_s = -0.15, p = .002$ ), and Positive Sharing ( $r_s = -0.10, p = .037$ ), (see Tables 7.11.1.1. to 7.11.1.4 bellow).

Table 7.11.1.1. Pearson Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Victimization intensity.

Variable	1	2	3	4	5	6	7	8	9
1. Empathy total score	-								
2. Suffering	0.83	-							
3. Positive Sharing	0.74	0.61	-						
4. Responsive Crying	0.65	0.40	0.25	-					
5. Emotional Attention	0.62	0.44	0.32	0.38	-				
6. Feel for Others	0.80	0.54	0.48	0.52	0.43	-			
7. Emotional Contagion	0.51	0.30	0.50	0.16	0.19	0.42	-		
8. Empathy mean score	0.97	0.73	0.70	0.71	0.63	0.81	0.61	-	
9. SB Victimization intensity	0.06	0.07	0.04	0.05	0.04	0.06	-0.10	0.03	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.1.2. Spearman Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Victimization intensity.

Variable	1	2	3	4	5	6	7	8	9
1. Empathy total score	-								
2. Suffering	0.80	-							
3. Positive Sharing	0.71	0.57	-						
4. Responsive Crying	0.65	0.38	0.23	-					
5. Emotional Attention	0.60	0.39	0.29	0.37	-				
6. Feel for Others	0.77	0.51	0.44	0.50	0.39	-			
7. Emotional Contagion	0.47	0.23	0.49	0.15	0.17	0.38	-		
8. Empathy mean Score	0.97	0.68	0.66	0.72	0.61	0.78	0.57	-	
9. SB Victimization intensity	0.09	0.10	0.02	0.08	0.07	0.08	-0.06	0.07	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.1.3. Pearson Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Perpetration intensity.

Variable	1	2	3	4	5	6	7	8	9
1. Empathy total score	-								
2. Suffering	0.83	-							
3. Positive Sharing	0.74	0.61	-						
4. Responsive Crying	0.65	0.40	0.25	-					
5. Emotional Attention	0.62	0.44	0.32	0.38	-				
6. Feel for Others	0.80	0.54	0.48	0.52	0.43	-			
7. Emotional Contagion	0.51	0.30	0.50	0.16	0.19	0.42	-		
8. Empathy mean score	0.97	0.73	0.70	0.71	0.63	0.81	0.61	-	
9. SB Perpetration intensity	-0.17	-0.18	-0.09	-0.05	-0.16	-0.18	-0.03	-0.15	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.1.4. Spearman Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Perpetration intensity.

Variable	1	2	3	4	5	6	7	8	9
1. Empathy total score	-								
2. Suffering	0.80	-							
3. Positive Sharing	0.71	0.57	-						
4. Responsive Crying	0.65	0.38	0.23	-					
5. Emotional Attention	0.60	0.39	0.29	0.37	-				
6. Feel for Others	0.77	0.51	0.44	0.50	0.39	-			
7. Emotional Contagion	0.47	0.23	0.49	0.15	0.17	0.38	-		
8. Empathy mean score	0.97	0.68	0.66	0.72	0.61	0.78	0.57	-	
9. SB Perpetration intensity	-0.18	-0.17	-0.10	-0.08	-0.15	-0.15	-0.05	-0.17	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Self-esteem and SB Victimisation-Perpetration Intensity:* For Self-esteem, results were significant for SB victimisation intensity ( $r_p = -0.24, p < .001$ ) (see Figure 7.11.2.1. in appendix B), but not for SB perpetration intensity.

*Aggression and SB Victimisation-Perpetration Intensity:* Aggression was the next factor that was explored along with its subscales (Figure 7.11.3.1 in appendix B). In relation to SB victimisation intensity, significant were the correlations with Aggression Total Score ( $r_p = 0.13, p = .010$ ) and Hostility ( $r_p = 0.23, p < .001$ ). As for SB perpetration intensity and aggression (see Figure 7.11.3.2 in appendix B), results were significant for Aggression Total Score ( $r_p = 0.21, p < .001; r_s = 0.28, p < .001$ ), Physical Aggression ( $r_p = 0.20, p < .001; r_s = 0.27, p < .001$ ), Verbal Aggression ( $r_p = 0.19, p < .001; r_s = 0.24, p < .001$ ), and Hostility ( $r_s = 0.12, p = .019$ ), (see Figure 7.11.3.3 and Tables 7.11.3.1 to 7.11.3.3 below).

Table 7.11.3.1. Pearson Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and SB Victimization intensity.

Variable	1	2	3	4	5	6
1. Anger	-					
2. Physical Aggression	0.65	-				
3. Verbal Aggression	0.66	0.61	-			
4. Hostility	0.47	0.34	0.42	-		
5. Aggression	0.87	0.85	0.80	0.68	-	
6. SB Victimization intensity	0.03	0.08	0.08	0.23	0.13	-

*Note.* The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.3.2. Pearson Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and SB Perpetration intensity.

Variable	1	2	3	4	5	6
1. Anger	-					
2. Physical Aggression	0.65	-				
3. Verbal Aggression	0.66	0.61	-			
4. Hostility	0.47	0.34	0.42	-		
5. Aggression	0.87	0.85	0.80	0.68	-	
6. SB Perpetration Scale	0.18	0.20	0.19	0.09	0.21	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.3.3. Spearman Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and SB Perpetration intensity.

Variable	1	2	3	4	5	6
1. Anger	-					
2. Physical Aggression	0.63	-				
3. Verbal Aggression	0.65	0.60	-			
4. Hostility	0.45	0.32	0.39	-		
5. Aggression	0.87	0.83	0.78	0.66	-	
6. SB Perpetration Scale	0.23	0.27	0.24	0.12	0.28	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Anger and SB Victimization-Perpetration Intensity:* Anger appeared significantly associated with SB perpetration intensity only ( $r_p = 0.18, p < .001$ ;  $r_s = 0.23, p < .001$ ).

*Impulsivity and SB Victimization-Perpetration Intensity:* For the Self reported impulsivity results were significant for victimisation intensity (see Figure 7.11.5.1 in appendix B;  $r_p = 0.11, p = .033$ ). Likewise, results were significant for SB perpetration intensity ( $r_p = 0.14, p = .004$ ;  $r_s = 0.16, p = .001$ ) (see Figure 7.11.5.2 in appendix B).

*Self Control and SB Victimisation-Perpetration Intensity:* In terms of Self-control, results were significant only in relation to SB perpetration intensity ( $r_p = -0.19, p < .001$ ;  $r_s = -0.23, p < .001$ ) (see Figure 7.11.6.1 in appendix B).

*Guilt and SB Victimisation-Perpetration Intensity:* For Guilt, results were significant for both victimisation intensity (see Figure 7.11.7.1 in appendix B;  $r_p = 0.11, p = .024$ ;  $r_s = 0.13, p = .010$ ), and perpetration intensity (see Figure 7.11.7.2 in appendix B;  $r_p = -0.19, p < .001$ ;  $r_s = -0.19, p < .001$ ). Moreover, SB victimisation intensity and perpetration intensity were examined for possible correlations with all the GASP subscales. For SB victimisation intensity and the subscales (GNBE, GR, GNSE, GSW Figure 7.11.7.3 in appendix B), results were significant for GNSE ( $r_p = 0.12, p = .014$ ;  $r_s = 0.15, p = .002$ ), GSW ( $r_p = 0.13, p = .007$ ;  $r_s = 0.13, p = .006$ ). Whereas for SB perpetration intensity (see Figure in appendix B), results were significant for GNBE ( $r_p = -0.15, p = .003$ ;  $r_s = -0.18, p < .001$ ), GR ( $r_p = -0.15, p = .002$ ;  $r_s = -0.14, p = .005$ ) and GNSE ( $r_p = -0.15, p = .003$ ;  $r_s = -0.15, p = .002$ ) (see Tables 7.11.7.1 to 7.11.7.2 below).

Table 7.11.7.1. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW, and SB Victimisation intensity.

Variable	1	2	3	4	5
1. GNBE	-				
2. GR	0.57	-			
3. GNSE	0.54	0.51	-		
4. GSW	0.06	0.07	0.19	-	
5. SB Victimisation intensity	-0.00	0.07	0.12	0.13	-

*Note.* The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.7.2. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW and SB Perpetration intensity.

Variable	1	2	3	4	5
1. GNBE	-				
2. GR	0.57	-			
3. GNSE	0.54	0.51	-		
4. GSW	0.06	0.07	0.19	-	
5. SB Perpetration intensity	-0.15	-0.15	-0.15	-0.09	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

#### *Morality and SB Victimization-Perpetration Intensity: For Total Morality Score,*

results were significant only in relation to SB perpetration intensity ( $r_p = -0.13$ ,  $p = .011$ ;  $r_s = -0.14$ ,  $p = .005$ ) (Figure 7.11.8.1 in appendix B). In terms of the MFQ30 subscales, results were significant between SB victimisation intensity (see Figure 7.11.8.2 in appendix B) and Purity ( $r_p = -0.12$ ,  $p = .018$ ;  $r_s = -0.11$ ,  $p = .033$ ) as well as progressivism ( $r_s = 0.10$ ,  $p = .040$ ). Whereas for SB perpetration intensity (see Figure 7.11.8.3 in appendix B), results were significant for Harm ( $r_p = -0.19$ ,  $p < .001$ ;  $r_s = -0.20$ ,  $p < .001$ ) and In-group ( $r_s = -0.11$ ,  $p = .031$ ) (see Tables 7.11.8.1 to 7.11.8.2 below).

Table 7.11.8.1. Pearson Correlation Matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity.

Variable	1	2	3	4	5	6	7	8
1. Harm	-							
2. Fairness	0.53	-						
3. In-group	0.28	0.23	-					
4. Authority	0.12	0.09	0.50	-				
5. Purity	0.20	0.19	0.45	0.53	-			
6. Progressivism	0.50	0.50	-0.44	-0.61	-0.52	-		
7. Morality	0.78	0.73	0.63	0.51	0.59	0.08	-	
8. SB Victimisation intensity	-0.01	0.04	-0.07	-0.05	-0.12	0.09	-0.04	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 7.11.8.2. Pearson Correlation Matrix among, Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity and SB Perpetration intensity.

Variable	1	2	3	4	5	6	7	8
1. Harm	-							
2. Fairness	0.53	-						
3. In-group	0.28	0.23	-					
4. Authority	0.12	0.09	0.50	-				
5. Purity	0.20	0.19	0.45	0.53	-			
6. Progressivism	0.50	0.50	-0.44	-0.61	-0.52	-		
7. Morality	0.78	0.73	0.63	0.51	0.59	0.08	-	
8. SB Perpetration intensity	-0.19	-0.05	-0.06	-0.00	-0.04	-0.08	-0.13	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Minimisation and SB Victimisation-Perpetration Intensity:* Lastly, in terms of Minimisation, results were significant only in relation to victimisation intensity ( $r_p = -0.14, p = .006$ ) (see Figure 7.11.9.1 in appendix B).

Next, the significant factors from the correlation analysis entered a linear regression model for victimisation and likewise for perpetration. However, to avoid

multicollinearity, the main scales and the subscales were tested separately, starting below with the main scales.

#### *Regression Model for Main Personality/Behavioural Factors and SB*

*Victimisation Intensity:* A linear regression analysis was conducted to assess whether Self-esteem, Self reported impulsivity, Guilt, and Minimisation significantly predicted victimisation intensity. Assumptions were taken into account (see Figure 7.11.9.2, Figure 7.11.9., Table 7.11.9.1, and Figure 7.11.9.4 in appendix B). The results of the linear regression model were significant,  $F(4,403) = 8.18, p < .001, R^2 = 0.08$ , indicating that approximately 8% of the variance in victimisation intensity is explainable by Self-esteem, Self reported impulsivity, Guilt, and Minimisation. However, only Self-esteem significantly predicted victimisation intensity,  $B = -0.11$ ,  $t(403) = -3.72, p < .001$ . This indicates that on average, a one-unit increase of Self-esteem will decrease the value of victimisation intensity by 0.11 units (see Table 7.11.9.2).

Table 7.11.9.2. Results for Linear Regression with Self-esteem, Self reported impulsivity, Guilt, and Minimisation predicting SB victimisation intensity.

Variable	B	SE	95% CI	$\beta$	t	p
(Intercept)	2.50	1.46	[-0.37, 5.37]	0.00	1.71	.087
Self-esteem	-0.11	0.03	[-0.16, -0.05]	-0.19	-3.72**	< .001
Self reported impulsivity	0.09	0.05	[-0.02, 0.20]	0.08	1.64	.103
Guilt	0.09	0.05	[-0.01, 0.18]	0.09	1.82	.070
Minimisation	-0.09	0.08	[-0.24, 0.06]	-0.06	-1.18	.239

Note. Results:  $F(4,403) = 8.18, p < .001, R^2 = 0.08$   
 Unstandardized Regression Equation: victimisation intensity = 2.50 - 0.11\*Self-esteem + 0.09\*Self reported impulsivity + 0.09\*Guilt - 0.09\*Minimisation

#### *Regression Model for Main Personality/Behavioural Factors and SB*

*Perpetration Intensity:* Following the previous model, a linear regression analysis was conducted to assess whether Self reported impulsivity, Self-control, Guilt, General Empathy Score, Anger, Aggression Total Score, and Total Morality Score significantly predicted SB perpetration intensity. Assumptions were taken into

account (see Figure 7.11.9.5, Figure 7.11.9.6, Table 7.11.9.3 and Figure 7.11.9.7 in appendix B). The results of the linear regression model were significant,  $F(7,400) = 4.34, p < .001, R^2 = 0.07$ , indicating that approximately 7% of the variance in SB perpetration intensity is explainable by Self reported impulsivity, Self-control, Guilt, General Empathy Score, Anger, Aggression Total, and Total Morality. However, when each factor was explored further, results for all factors were non-significant (see Table 7.11.9.4).

*Table 7.11.9.4. Results for Linear Regression with Self-reported impulsivity, Self-control, Guilt, Empathy mean score, Anger, Aggression, and Morality mean score predicting SB Perpetration intensity.*

Variable	B	SE	95% CI	$\beta$	t	p
(Intercept)	1.92	1.08	[-0.21, 4.05]	0.00	1.77	.077
Self-reported impulsivity	0.01	0.03	[-0.04, 0.06]	0.01	0.25	.799
Self-control	-0.03	0.03	[-0.08, 0.03]	-0.06	-0.83	.408
Guilt	-0.04	0.02	[-0.08, 0.01]	-0.09	-1.59	.113
Empathy mean score	-0.11	0.14	[-0.39, 0.17]	-0.04	-0.78	.435
Anger	-0.00	0.02	[-0.04, 0.04]	-0.00	-0.02	.983
Aggression	0.01	0.01	[-0.01, 0.02]	0.12	1.13	.260
Morality	-0.03	0.03	[-0.09, 0.02]	-0.06	-1.17	.245

*Note.* Results:  $F(7,400) = 4.34, p < .001, R^2 = 0.07$

Unstandardized Regression Equation: SB Perpetration Scale = 1.92 + 0.01\*Self-reported impulsivity - 0.03\*Self-control - 0.04\*Guilt - 0.11\* Empathy mean score - 0.00\* Anger + 0.01\*Aggression - 0.03\* Morality

### *Regression Model for Personality/Behavioural Sub-factors and SB*

*Victimisation Intensity:* After the main scales, a linear regression analysis was conducted to assess whether GNSE, GSW, Suffering, Emotional Contagion, Hostility, Purity, and Progressivism significantly predicted victimisation intensity. Assumptions were taken into account (see Figure 7.11.9.8, Figure 7.11.9.9, Table 7.11.9.5 and Figure 7.11.9.10 in appendix B). The results of the linear regression model were

significant,  $F(7,400) = 5.71, p < .001, R^2 = 0.09$ , indicating that approximately 9% of the variance in victimisation intensity is explainable by GNSE, GSW, Suffering, Emotional Contagion, Hostility, Purity, and Progressivism. Hostility significantly predicted victimisation intensity,  $B = 0.10, t(400) = 3.80, p < .001$ . This indicates that on average, a one-unit increase of Hostility will increase the value of victimisation intensity by 0.10 units. Moreover, Purity significantly predicted victimisation intensity,  $B = -0.51, t(400) = -2.29, p = .022$ , indicating that on average, a one-unit increase of Purity will decrease the value of victimisation intensity by 0.51 units (see Table 7.11.9.6).

Table 7.11.9.6. Results for Linear Regression with GNSE, GSW, Suffering, Emotional Contagion, Hostility, Purity, and Progressivism predicting SB victimisation intensity.

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	-1.31	1.50	[-4.25, 1.63]	0.00	-0.87	.383
GNSE	0.05	0.04	[-0.02, 0.12]	0.07	1.29	.200
GSW	0.05	0.03	[-0.01, 0.12]	0.08	1.53	.128
Suffering	0.61	0.37	[-0.11, 1.33]	0.10	1.67	.096
Emotional Contagion	-0.35	0.20	[-0.74, 0.04]	-0.09	-1.79	.075
Hostility	0.10	0.03	[0.05, 0.15]	0.19	3.80 <sup>**</sup>	<.001
Purity	-0.51	0.22	[-0.95, -0.07]	-0.14	-2.29 <sup>*</sup>	.022
Progressivism	-0.14	0.26	[-0.65, 0.36]	-0.04	-0.56	.574

Note. Results:  $F(7,400) = 5.71, p < .001, R^2 = 0.09$

Unstandardized Regression Equation: victimisation intensity = -1.31 + 0.05\*GNSE + 0.05\*GSW + 0.61\* Suffering - 0.35\* Emotional Contagion + 0.10\* Hostility - 0.51\*Purity - 0.14\*Progressivism

### *Regression Model for Personality/Behavioural Sub-factors and SB*

*Perpetration Intensity:* Finally, a linear regression analysis was conducted to assess whether GNBE, GR, GNSE, Suffering, Positive Sharing, Emotional Attention, Feel for Others, Anger, BP Physical Aggression, Verbal Aggression, Hostility, Harm, and In-group significantly predicted SB perpetration intensity. Assumptions were taken into consideration (see Figure 7.11.9.11, Figure 7.11.9.12, Table 7.11.9.7 and Figure 7.11.9.13 in appendix B). The results of the linear regression model were significant,  $F(13,394) = 2.99, p < .001, R^2 = 0.09$ , indicating that approximately 9% of the

variance in SB perpetration intensity is explainable by GNBE, GR, GNSE, Suffering, Positive Sharing, Emotional Attention, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, Harm, and In-group. However, when the subscales were examined individually, none of the sub-factors significantly predicted SB perpetration intensity (see Table 7.11.9.8).

*Table 7.11.9.8. Results for Linear Regression with GNBE, GR, GNSE, Suffering, Positive Sharing, Emotional Attention, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, Harm, and In-group predicting SB Perpetration intensity.*

Variable	B	SE	95% CI	$\beta$	t	p
(Intercept)	1.41	0.73	[−0.01, 2.84]	0.00	1.95	.052
GNBE	-0.00	0.02	[−0.03, 0.03]	-0.00	-0.02	.981
GR	-0.00	0.02	[−0.04, 0.04]	-0.00	-0.07	.948
GNSE	0.00	0.02	[−0.04, 0.04]	0.00	0.01	.991
Suffering	-0.23	0.19	[−0.60, 0.15]	-0.09	-1.17	.241
Positive Sharing	0.16	0.13	[−0.10, 0.42]	0.08	1.22	.223
Emotional Attention	-0.04	0.12	[−0.27, 0.20]	-0.02	-0.30	.764
Feel for Others	-0.15	0.10	[−0.36, 0.05]	-0.09	-1.45	.149
Anger	0.02	0.02	[−0.01, 0.05]	0.09	1.15	.249
Physical Aggression	0.01	0.01	[−0.01, 0.03]	0.07	1.02	.308
Verbal Aggression	0.02	0.02	[−0.02, 0.06]	0.06	0.87	.385
Hostility	-0.00	0.01	[−0.03, 0.02]	-0.01	-0.24	.807
Harm	-0.17	0.11	[−0.39, 0.05]	-0.10	-1.53	.126
In-group	-0.04	0.09	[−0.21, 0.13]	-0.02	-0.43	.666

*Note.* Results:  $F(13,394) = 2.99$ ,  $p < .001$ ,  $R^2 = 0.09$

Unstandardized Regression Equation: SB Perpetration intensity = 1.41 - 0.00\*GNBE - 0.00\*GR + 0.00\*GNSE - 0.23\*Suffering + 0.16\*Positive Sharing - 0.04\* Emotional Attention - 0.15\* Feel for Others + 0.02\* Anger + 0.01\* Physical Aggression + 0.02\* Verbal Aggression - 0.00\*Hostility - 0.17\*Harm - 0.04\*In-group

## 7.12. Discussion

**Empathy:** It has been shown in numerous studies (Jolliffe & Farrington, 2006; Stavrinides et al., 2010; Topcu & Erdur-Baker, 2012) that empathy is associated with SB perpetration in such a way that low levels of empathy can present a risk for involvement in SB perpetration. Understandably, since if an individual does not have the capacity or training to feel for others, then it is highly likely that SB perpetration might seem as a minimal act to them. Moreover, there were indications in the literature (Noorden, Haselager, Cillessen & Bukowski, 2015), which suggested

that empathy is negatively associated with victimisation. Therefore, in this study, it was expected that empathy would function as a protective factor for both SB victimisation and perpetration. The findings from this project agree with the aforementioned previous studies; in essence, the findings showed that there is a significant negative correlation between empathy and SB perpetration intensity,. Moreover, results also showed that negative significant correlations occurred between empathic suffering, emotional attention, feel for others, and positive sharing with SB perpetration. The findings indicate that when anti-bullying programs utilise empathy training to decrease SB perpetration, all aspects of empathy should be utilised to successfully incorporate empathy in such programs.

On the other hand, an aspect that was rarely examined in previous studies is the association between empathy and SB victimisation. This study found that as emotional contagion increases SB victimisation tends to decrease. Therefore, it can be assumed that victims could potentially influence perpetrators and bystanders into empathising and stop perpetration. Besides, it must be taken into account that 48.7% from this sample stopped perpetration because they felt sorry for the victims. Moreover, another association resulted between empathic suffering and SB victimisation, such as empathic suffering increased SB victimisation increased as well. Therefore, it is possible that as victims see other victims being bullied they retract from retaliating and instead conform to the role of the victim; thus, resulting in repetitive and perhaps more intense victimisation.

Finally, although correlations resulted significant between empathy, empathy's sub-factors and SB victimisation, and perpetration, nonetheless, the sub-factors or empathy in general did not predict SB victimisation, or perpetration intensity. Consequently, partially rejecting the first expectation set in section 7.10 of

this chapter, which expected empathy to function as a protective factor for both SB victimisation and perpetration. Instead, it was shown that Empathy is a complicated factor, as some its sub-aspects, function as protective factors for SB perpetration and victimisation, and others function as risk factors for SB victimisation. However, as there was not found a significant predictive effect, the latter conclusion would need validation with a future project. Perhaps this peculiarity is explained by the sample size ( $n = 408$ ) of this study, or perhaps correlations between the variables do not necessitate prediction. Regardless, it is advised for researchers and organisations that built anti-bullying strategies to incorporate empathy training in their programs. Besides, previous research (Garandeau, et al., 2016) has shown that attempts at making perpetrators feel empathy for the victim increase perpetrators' intention to stop their negative behaviour.

***Self-esteem:*** Self-esteem is another factor that has been extensively studied in relation to its effects for SB (Rigby & Cox, 1996; Brito & Oliveira, 2013). It was acknowledged that self-esteem could function as both an antecedent and a consequence of victimisation (McMahon, et al., 2010; Drennan, et al., 2011). For this factor, it was expected that high self-esteem would function as protective factor for victimisation. Indeed, the findings from this study confirmed the hypothesis, and showed that as self-esteem increases, SB victimisation tends to decrease. In addition, the regression model suggested that self-esteem is a significant predictor for victimisation, such as that an increase in self-esteem would decrease the SB victimisation intensity. Therefore, agreeing with previous findings, and further advising future researchers to include self-esteem in their anti-bullying programs and train victims to appreciate themselves, their individual differences, their skills and values.

**Aggression:** Aggression has long been thought as one of the main reasons that young individuals engage in SB perpetration (Catanzaro, 2011; Ireland & Archer, 2004; Homel, 2013; Thornton, et al., 2013). Therefore, after considering the literature, in this project, it was expected that Aggression would function as risk factor for both SB victimisation and perpetration. Indeed, the expectation was confirmed, as the results showed that as aggression increases, victimisation tends to increase. The same finding occurred for the sub-scale hostility, such as that as hostility increases, victimisation increases as well. The findings can be explained in terms of prevalence rates from this project. Earlier it was shown that 5.2% of SB perpetrators said they victimised specific individuals that would get angry a lot and 23.4% because those victims could not get along with other people. Similarly, 4.1% of the victims believed that they were victimised because they get angry a lot and 8.5% because they do not get along with other people. While in addition, approximately 11.7% of SB perpetrators admitted that they victimised those that were previously their perpetrators. Such findings conclude that aggressiveness is a potential risk factor for SB victimisation. Regarding SB perpetration and aggression, results also showed that as aggression increases, perpetration tends to increase. Similar were the results for all the sub-scales, showing that as physical aggression, verbal aggression and hostility increase, SB perpetration tends to increase as well. The findings agree with previous literature (Catanzaro, 2011; Ireland & Archer, 2004; Homel, 2013; Thornton, et al., 2013) that indicated aggression as one of the main reasons that young people get involved in SB perpetration.

In terms of predictions, only hostility appeared to have an increasing effect on victimisation, whereas, for SB perpetration neither aggression nor its examined sub-factors appeared as significant predictors. Therefore, with hesitation, in a way, we

would disagree with previous literature (Catanzaro, 2011; Ireland & Archer, 2004; Homel, 2013; Thornton, et al., 2013), that signified aggression as a strong significant predictor for perpetration. Consequently, it is decided that researchers should consider aggression when developing anti-bullying programs. Perhaps such models should attempt to help individuals with high levels of aggression to direct it in a healthy way and environment, such as sports and martial arts. That way, this approach could be utilised as a defuse mechanism and aggressive individuals might not feel the need to direct their emotions towards their fellow peers.

**Anger:** In most instances, anger is considered an aspect of aggression and usually studied with the same scale, as in this project (Gresham, et al., 2016). However, because anger refers to the emotion one experiences (Kashdan, et al., 2015), while aggression refers to the act (Wilkowski & Robinson, 2008; 2007). Anger is widely perceived as associated to SB perpetration and as a strong predictor (Hein, et al., 2015; Tanrikulu & Campbell, 2015), such as that, the angrier one is the higher the likelihood of SB perpetration (Bosworth, et al., 1999). However, Rieffe, et al. (2012) supported that anger is also related to SB victimisation. Basing the expectations on the literature, from this analysis it was expected that Anger would function as risk factor for both SB victimisation and perpetration. However, results lead to partially reject the expectation, as there was not found a significant correlation between anger and victimisation and it does not function as a predictor for SB victimisation.

On the other hand, anger and SB perpetration were positively and significantly correlated, such as that as anger increases, perpetration tends to increase, consequently partially confirming the set expectation, only in terms of perpetration, although once more it showed no predictive effect. The findings agree with previous

research (Hein, et al., 2015; Tanrikulu & Campbell, 2015; Rieffe, et al., 2012), in terms of anger being associated with SB perpetration, but disagree with Bosworth, et al. (1999) that supported anger as a predictor for SB. Thus, concluding that anger should be taken into account when developing anti-bullying projects; however, schools and developers should not take for granted that an angry person will SB perpetrate or become a victim.

***Impulsivity:*** Literature (Espelage, et al., 2001; Oluyinka, 2008) informs that high impulsivity functions as a strong factor for SB perpetration. Therefore, it was assumed that similar results would occur from this project. And without a doubt, this project's findings showed that as impulsivity increases, both SB victimisation intensity and perpetration intensity tend to increase, suggesting that high impulsivity affects both victims and perpetrators. Nonetheless, despite the significant correlations, the regression model showed that impulsivity is not a predictor for either victimisation or perpetration; thus disagreeing with previous findings (Espelage, et al., 2001; Oluyinka, 2008), which signified impulsivity as a strong predictor for perpetration. The reasons of this disagreement are unknown and only assumptions can be made. It may well be that impulsivity is mediated by other factors such as age or emotional self-control, which is discussed below. Nevertheless, based on the literature and the correlations, it is advised that anti-bullying strategy developers attempt to find a way to train young people to manage their emotions and thoughts before they act.

***Self-control:*** In general, lack of self-control results or equals impulsivity (Archer & Southall, 2009). Previous projects appear conflicted in terms self-control and SB victimisation and perpetration. For example, Archer and Southall (2009) supported that lack of self-control is associated with perpetration and victimisation. Whereas, others (Chui & Chan, 2013; Chui & Chan, 2015; 2014) supported that self-

control is negatively associated only to perpetration. Consequently, from this project, it was expected that low self-control would function as a risk factor for both SB victimisation and perpetration. However, no significant association was found between self-control and victimisation, whereas, there was found a negative relationship with SB perpetration. As such, agreeing with Chui and Chan (2013) and Chui and Chan (2015; 2014), in terms of associations, but not in terms of predictions, as no such significance resulted from the regression model. While in addition rejecting the expectation set in section 7.10. Consequently, it was concluded that although self-control potentially affects perpetration, it does not affect victimisation and it cannot be considered as one of the strongest factors for SB. Concluding, it is advised that self-control training should be focused mainly on individuals that are pure bullies.

**Guilt:** The next examined factor was guilt. In general, previous research (Menesini, et al., 2003) showed that low levels of guilt are associated with SB perpetration. While, others (Ahmed & Braithwaite, 2004) added that perpetrators are less likely to acknowledge shame. In essence, that implies that perpetrators do not sympathise with the victim and do not feel responsible for the harm caused (Menesini & Camodeca, 2008). Some projects (Ahmed & Braithwaite, 2012) showed that shame management should be incorporated in anti-bullying programmes, since shame acknowledgment could lead to desistence from bullying. Based on previous literature, it was expected that guilt and its sub-aspects would function as protective factors for SB perpetration, whereas for SB victimisation no assumptions were made due to lack of direction from the existing literature. From the exploratory part, this project found that as guilt could potentially function as a risk factor for victimisation, as the two variables appeared positively associated. Similar were the results for the subscales

GNSE (shame negative self-evaluation) and GSW (shame-withdraw). The results from this part suggest that, if victims blame themselves for their victimisation, they may experience feelings of guilt and shame, which could potentially lead to further victimisation, if such feelings are also externalised. Therefore, anti-bullying strategies should help victims understand that perpetrators' behaviour is not the victims' fault. Victims should also be trained and encouraged to speak out for their victimisation instead of accepting it and internalising.

Additionally, guilt as a whole and the sub-scales GNBE (guilt-negative-behaviour-evaluation), GR (guilt-repair) and GNSE appeared negatively associated with SB perpetration. Consequently, partially confirming the expectation, but only in terms of perpetration, while due to non-significant results from the regression, it could be assumed that the support of the expectation is relatively weak. Nonetheless, the results also support previous literature (Menesini, Sanchez, Fonzi, Ortega, Costabile & Lo Feudo, 2003) that showed low levels of guilt associated with SB perpetration. The overall examination, suggest that anti-bullying projects should incorporate shame and guilt acknowledgment in anti-bullying methods that are focused on changing the bullies' behaviour. Finally, disregarding the non-significant results from the regression, it is noted that shame and guilt acknowledgment are broadly used in restorative justice (Ahmed & Braithwaite, 2012).

**Morality:** Generally, it has been shown that moral disengagement is associated with SB perpetration (Hymel & Bonanno, 2014; Sims-Schouten, 2015). Other projects (Perren & Gutzwiller-Helfenfinger, 2012) indicated that a lack of moral values predict SB. Therefore, it was assumed that morality would function as a protective factor for SB perpetration. However, for consistency, victimisation was also examined, and to our surprise, it was found that the sub-aspect of morality, that

being purity, functions as a protective factor for victimisation; whereas, progressivism functions as a risk factor for victimisation. Moreover, Nonetheless, purity also appeared to be a significant predictor for victimisation intensity, with the same direction as the correlation. Thus, suggesting that, the more one sticks to moral values and traditional ways, the less the intensity of victimisation, while the more one is progressive, the more he/she becomes a target for victimisation.

On the other hand, it was found that morality indeed functions as a protective factor for SB perpetration, therefore, agreeing with previous studies (Hymel & Bonanno, 2014; Sims-Schouten, 2015). In addition, two aspects of morality, harm and in-group, showed significant negative relationships with perpetration intensity. As a result, the expectation was confirmed, but not strongly supported, as no significance was found from the regression models; while also disagreeing with previous projects (Perren & Gutzwiller-Helfenfinger, 2012), which lack of moral values as a strong predictor for SB. Still, it is concluded that morality and teaching moral values to children can help reduce the risk of victimisation and perpetration. Particularly, anti-bullying projects should help young people understand that there is nothing wrong with being traditional and we do not all have to be progressive. While in addition teaching young people the effects of caring for someone else and the importance of respecting and appreciating the group that one might belong to can help reduce perpetration.

**Coping Skills/minimisation Strategy:** Finally, the last factor that was explored was minimisation. Trémolière and Djeriouat (2016) had found that minimisation of the importance of harmful intent in moral judgment is associated with aspects of a sadistic personality. While, Pozzoli, Gini and Vieno (2012) found that between-class variability of pro-bullying behaviour was positively related to minimising one's

agentive role and blaming/dehumanising the victim. Such findings indicate that a “healthy” young individual would not normally minimise the severity of a SB incident. It was therefore, expected to find minimisation as a risk factor for perpetration, whereas no direction had been decided for victimisation, due to lack of information in the literature. This study found that the minimisation strategy is negatively associated with SB victimisation intensity only, thus adding new insightful information in the literature related to bullying. Also, suggesting that victims should not focus their daily lives on SB incidents, rather they should try to understand the reasons behind the victimisation and attempt to think of SB as something that can be resolved if victims speak out and ask for help. Finally, the expectation set in section 7.10 is rejected, as no association was found between minimisation and perpetration, while no significant predictions resulted from the analysis. Perhaps, participants’ age played a role in the results, as most of participants were in their twenties; which possibly could have added to their maturity and may have altered their coping skills and strategies from the time that they experienced bullying.

### **7.13. Conclusion**

This last chapter that examined factors in relation to SB, confirmed some findings from previous literature, others opposed, and new insightful results came to cover various research gaps. In summary, this chapter showed that empathy and its sub-aspects, empathic suffering, emotional attention, feel for others, and positive sharing, reduce SB perpetration intensity. Whereas, the sub-aspects emotional contagion empathic suffering and increase SB victimisation intensity. Self-esteem on the other hand decreases SB victimisation intensity, only. While, aggression as a total and hostility increase SB victimisation intensity, with hostility prevailing in terms of power effect; whereas, aggression as a total, and the sub-scales physical aggression,

verbal aggression and hostility increase SB perpetration intensity. The last sub-aspect of aggression, which is anger, also appears to increase SB perpetration intensity. Whereas, impulsivity, seems to increase both SB victimisation and perpetration intensity, though it did not present a strong effect. That way, opposing self-control that reduces SB perpetration intensity. Going back to victimisation, guilt and the sub-aspects shame negative self-evaluation and shame-withdraw, showed an increasing effect on intensity, but guilt and the sub-aspects guilt-negative-behaviour-evaluation, negative self-evaluation and guilt-repair decrease SB perpetration intensity. Moreover, the sub-aspect of morality, purity, decreases victimisation with a strong effect, whereas, progressivism increases SB victimisation intensity. As for perpetration, morality as a total and the sub-aspects harm and in-group, decrease SB perpetration. Last but not least, minimisation decreases SB victimisation intensity. With such complicated factorial effects, it is understood why it can be difficult to tackle bullying, even when considering multiple aspects. Nonetheless, it is concluded that if the aforementioned factors and the related effects are to be appropriately incorporated in an anti-bullying model, the chances for SB tackling increase. General directions of the possible ways are given in chapter eight, which summarises all the important findings from part two of this thesis.

## ***Chapter 8 - General Conclusion of Part 2***

Part one introduced past literature on the subject of bullying and presented various aspects, such as terminology for SB and CB and general prevalence rates. Part two, focused solely on SB and the related aspects, such as the victim, the bully, the role switch, types of SB, and of course the risk and preventative factors related to both victimisation and perpetration. To clarify inconsistencies from past literature, identify strong factors, and compensate for any research gaps, the statistical analysis included descriptive statistics, relationships between the factors and SB, differences and predictive effect for SB victimisation and SB perpetration. Moreover, in comparison to other studies, this study followed a different approach and tested the factors both in terms of SB occurrence and SB intensity. The main factors were divided into three themes; those related to background factors, such as age and gender; those related to family and friend environment, such as parental support and sibling bullying; and factors addressing participants' personality and individual behaviour, such as self-esteem and aggression. To measure the factors, the questionnaire included socio-demographic questions, such as "how old are you", and direct questions for family/friend environment (e.g. do your siblings support you when you are in need), and then concluded with reliable tested scales (e.g. the Rosenberg self-esteem scale).

***The SB Victim:*** After chapter one that was a general introduction to bullying, chapter two focused only on the SB victim. The prevalence rates for SB victimisation for this sample is 60.7%, which in comparison to other studies (e.g. Wang et al., 2009; Elias & Zinsd, 2003) was rather higher, as was the frequency of weekly repetitive victimisation (39.7%). Taking into account that 246 individuals reported SB victimisation and thinking about the daily and weekly lives of these individuals and

their repetitive harassment, leads to an understanding of how these people might be led to depression, isolation and other more severe consequences such suicide attempts. However, it was also shown that the majority of SB victims reported ability to defend themselves, which is encouraging; that way, implying that it is imperative to try and define victims according to their ability of defence. Perhaps, if that aspect is taken into account, more support and advise could be provided to the ones that are not as able to defend themselves, thus preventing severe victimisation consequences.

Another interesting finding is related to Olweus's (1993) SB criteria, one of which is the power imbalance; but power imbalance can be thought as age difference, body mass, marks, status, intelligence, and numerous other aspects, and even gender. This project found that the majority of victims were victimised by peers of the same age, therefore, rejecting the power imbalance in terms age difference. Though, other prevalent categories included, someone popular, someone with many friends, and someone stronger and more powerful, indicating that power imbalance might relate to popularity, status and body mass. Thus, signifying the necessity of better defining the criteria of the SB definition.

In terms of why were these victims targeted and according to the victims' perceptions, the majority reported appearance such as body weight and for being different in many aspects, such as choice of clothes. If that is the case, then it is assumed that wearing a school uniform might actually decrease SB. Moreover, such indications inform that, schools, parents and those implementing anti-bullying strategies, must train and educate young students to accept others' uniqueness and differences and respect the variation amongst their peers. But appearance and differences were not the only reported reasons; some victims perceived their personality and characteristics such as crying a lot or perceived by peers as a "wimp"

and even not getting along with others. Once more, supporting that youngsters need to be taught how to respect individual differences both in terms of appearance and personality, and how not to criticise ones' emotions.

Regarding victimisation means, this study also showed that verbal victimisation prevails, followed by rumours, exclusion, and last physical victimisation. Though, most of the victims reported more than one ways and in some cases they experienced all the victimisation means. Therefore, informing that victimisation means overlap and co-occur, while physical victimisation might be a result of an escalated repetitive condition. Therefore, schools and parents should take verbal victimisation seriously; try to resolve such incidents, before means that are more serious occur.

In chapter two, some factors were examined in relation to victimisation, amongst which was parents' awareness of their children's victimisation. For this aspect, it was shown that the majority of victims' parents was aware of the victimisation but 1/3 of parents were not aware. While in addition, it was proven that SB victimisation occurrence is related to parents' awareness of the victimisation. Therefore, signifying the imperativeness of schools informing parents, when their children experience victimisation, but also the importance for parents to maintain a good relationship with communication with their children. Another variable that was tested was experiencing bullying at home, though the majority of participants did not report such experiences. Still, it was found that the two variables are related. Thus agreeing with previous research (Jankauskiene, et al., 2008), that suggested victimisation at home may increase the risk of victimisation at school. Possibly, victims adopt the status of the victim at home, thus when victimised at school accept the status and conform. Consequently, decreasing SB victimisation rates, intervening

and preventing SB should be a collective attempt where schools and parents communicate and collaborate.

Coming to a crucial aspect on how victimisation stopped for the victims of this sample, it was revealed that the majority were freed from such experiences only when they left school. Such findings support others (Frisén, et al., 2012) when informed that SB is one of the most difficult problematic behaviours to tackle. Although, 1/3 of the victims reported that, they managed to stop their victimisation by standing up to the perpetrator. Hence, victims should speak up about their victimisation, attempt to reason with the perpetrators, attempt to defend themselves, and react to their victimisation. Not to be confused with reciprocating; instead victims should express that such behaviour is intolerable. Finally, it must be noted that when victims witnessed other victims' victimisation, the majority tried to protect the other victim and intervene, which suggests a high degree of empathy, perhaps due to their own experiences. Or victims might perceive other victims as members of the "victims" group and thus attempt to support each other. Such support is highly important, as victims gain a feeling of belonging and feel that someone is fighting in their corner. In addition, such reaction might make perpetrators feel uncomfortable for their behaviour, feel judged, ashamed, and confronted for their actions; thus preventing repetition. Important also is to note that the victims who intervened during someone else's victimisation, reported that bullying is wrong and they felt compassion for the other victim, while also reminded them of their own torment and did not want others to suffer in the same way they did; while wished they had such support when they were victimised. Concluding, the latter findings suggest that it takes one to know one, which ultimately makes victims feel connected to other victims; hence, attempting to provide some level of support. Such indications lead to the conclusion that schools

should encourage their students to stand up to perpetrators, criticise negative behaviour and urge bystanders to intervene in an acceptable way when they witness victimisation.

***The SB Perpetrator:*** After examining SB victimisation, the next chapter looked into SB perpetration, with the prevalence rates reaching 19.6%. The rates fall under the mean previously reported rates for perpetration (15.1%), as Maïanoet et al. (2016) had previously informed. In terms of frequency, Likewise, the majority of perpetrators (64.8%) reported that they bullied someone once or more times a month, in comparison to victimisation that the most prevalent was once or more times a week. Therefore, it is safe to assume that perpetrators might feel reluctant to share a behaviour that is generally acceptable. As for the reasons that they targeted specific individuals, the majority reported that those victims did not get along with other people, were different and wimps. The reported reasons show some form of consistency with the perceptions of the victims. Possibly, perpetrators chose individuals that have less friends and thus less peer support; that way it is easier for bullies to harass victims without being criticised by peers. In general, as humans we tend to like people similar to us; therefore, anyone different and without a group, might be considered as weak and may be automatically rejected by peers. As a result, it is concluded that perpetration could be prevented or reduced if children are educated from a young age, and shown how to accept others for who they are, respect others' preferences and respect those perceived as different. In essence, young individuals should understand that although most of us conform to common norms, nonetheless, we are all different and that is what gives beauty to the human race.

Regarding perpetration means, once more verbal prevailed as in victimisation, followed by physical bullying, spreading rumours and last came exclusion. These

findings go against the assumption that perpetrators might be ashamed to admit to negative behaviour; nonetheless, because many participants were completing the survey after a number of years the events had occurred, it is possible that they remembered only the most intense facts related to that behaviour. Despite the differences in sequence between reported victimisation means and reported perpetration means, verbal bullying was still first. This implies that verbal SB can escalate to physical SB if there is no intervention during the first stages of such incidents. The next explored aspect was parents' awareness of their children's perpetration, and unlike victimisation, the majority reported that their parents were unaware. This suggests that, in some extent perpetrators know that bullying is wrong; and thus are afraid of punishment if incidents become known (Holt, et al., 2009). To further support the necessity of schools informing parents regarding children's behaviour, results from the analysis, indicated that parents' awareness and SB perpetration intensity are not independent. Therefore, suggesting that it is imperative for schools to keep parents informed about bullying incidents, if the common goal is to decrease SB rates.

Nonetheless, punishment might not be the only way to stop perpetration. As it was shown that, the main reasons that perpetrators stopped their negative behaviour were guilt and pity (sorry) for the victim. It is therefore safe to say that, perpetrators can be educated and trained to become more empathetic, while encouragement to acknowledge shame for their actions might prove a safe and permanent solution for altering their negative behaviour. Additionally, perpetrators might be individuals that education about healthy and acceptable ways for expressing their emotions, while might have not been taught that SB is wrong. On that area, findings from this study showed that most of the perpetrators had protected someone else's victim from

bullying; consequently confirming the assumption that that perpetrators can change, as they appear to be capable of understanding the wrongfulness of such behaviour, when witnessing it on someone they care for. Besides, the perpetrators that protected someone else's victim, stated that they were motivated to act in such a way because they realised that bullying is wrong and they felt for the victim, whilst by doing so they wanted to compensate for their past negative actions. Leading to the conclusion that if perpetrators walk into victims' shoes, then there are higher chances of stopping their negative behaviour. This is not to be confused with a suggestion of bullies being bullied in order to change. Instead, there are other appropriate ways to explicitly show the negative effect of perpetrators' actions, such as restorative justice and watching videos where victims explain how bullying has affected them. Finally, as in victimisation, from the times that perpetrators of this sample intervened during someone else's victimisation, 91.5% of the times they succeeded or sort of succeeded in stopping that victimisation. Consequently, indicating the importance of peer support, but also the necessity of teaching young individuals how to appropriately intervene during bullying incidents.

**Role Switch:** The next subject that was explored in chapter four was role switch from victim to perpetrator and the opposite. When victimisation was examined, it was found that approximately 63% of the victims had attempted to protect another victim, but the intervention mean is not known. One of the assumptions is that these victims may have attacked the perpetrator to stop the other victim's victimisation; thus resulting in the role switch. However, it is only an assumption; therefore, it is advised that future research should include a direct question or section in their survey that, will address the subject of role switch only. Moreover, when perpetration was examined it was found that 11.7% of perpetrators

bullied their victims for reasons that were related to perpetrators' previous victimisation (e.g. bullied me first, they were bullies, attacked me first, etc.). In essence, what it was shown in chapter two and three is that the rates of SB victim-bully in this project are approximately 12%. Moreover, it was found that SB victimisation intensity and SB perpetration intensity are positively associated. The latter indicates an overlapping effect and suggests that bully-victims might be a result of victimisation and reciprocation, retaliation and revenge (Edmondson & Zeman, 2009). Concluding, the role switch implies that SB is a vicious cycle that cannot be broken unless there is intervention to stop victimisation and consequently perpetration.

***Background Factors and SB:*** The next three chapters focused on specific factors that have been repeatedly appearing in literature as influential for SB. The first investigated factors were background factors, such as age, ethnicity and religion. To identify significant predictors, all the factors entered separate regression models with victimisation, perpetration, victimisation intensity, and perpetration intensity. For SB victimisation, the results showed that atheism is a risk factor for both SB victimisation occurrence, and victimisation intensity. Perhaps, the findings suggest that if one believes in some kind of religion then inevitably feels that he/she belongs to a group within the community. It is also possible that individuals that share a religion support each other when in need, and therefore, when one of the religious group members is victimised, his/her peers intervene. Moreover, it may well be that religious groups teach morals and provide advice and support to the followers; as a result these individuals might have a more effective victimisation copying strategy. For perpetration, only age and male gender functioned as significant predictors. In terms of age, it was found that as youngsters become older, they are more likely to SB

perpetrate and with more intense means. What the latter suggests, is that schools should pay attention to children's behaviour and particularly male as they grow up. It is highly likely that as males reach puberty, specific hormones are released, which contribute to bodily changes (muscles, voice change, hair growth, etc.), but also may increase levels of aggression and impulsivity or lack of self-control. As a result, they become more prone to violent behaviour and a need to show their dominance over others.

***Family and Friend Related Factors:*** The next examined factors were related to family and friends, such as relationship with parents, sibling support, sibling teasing, friends' support and other related aspects. Results showed that SB victimisation occurrence is related to having/not having a friendly relationship with parents and parental support, while a friendly relationship with parents protects from SB victimisation occurring. Moreover, it was shown that, there were significant differences between the levels of friendly relationship with parents, parenting style , and parental support in terms of victimisation intensity; though only having a friendly relationship with parents, predicted SB victimisation intensity decrease. Likewise, SB perpetration occurrence and friendly relationship with parents appeared related to one another, while SB perpetration intensity was significantly different between the levels of friendly relationship with parents, but with no significant differences were shown in the pairwise comparisons. Nonetheless, once more not having friendly relationship with parents was indicated as a significant predictor that increases the likelihood of SB perpetration occurring. These findings further support the assumptions from previous chapters that, parents must be involved in young individuals' lives as much as possible. By maintaining a healthy relationship, parents have the opportunity to prevent victimisation and attempt to stop it when it occurs, as they are able to provide

support, advice and even visit the school and take action. Moreover, parents could also advise those that perpetrate and explain what are acceptable behaviours, towards others, that way SB perpetration repetition could be prevented.

Next in the sequence were the variables related to siblings. The findings revealed that sibling teasing is related to peer victimisation at school, whilst sibling teasing appears to be a significant risk factor. Moreover, further analysis showed significant differences between the levels of sibling support, sibling teasing, and the levels of parental reaction to sibling teasing, in relation to SB victimisation intensity. Though, none of the variables proved to be significant predictors for SB victimisation intensity. As for SB perpetration occurrence, it was found that having siblings protects from SB perpetrating. There may be numerous reasons for this effect; a possible reason could be that perpetrators that have siblings may put their siblings in their victims' shoes and may reconsider their actions. Alternatively, individuals who have one and more siblings receive more support or advice, thus their need to express any negative emotions is mediated. Therefore, it is concluded that it is worthwhile to pay attention to victims and perpetrators' siblings, when attempting to reveal the reasons behind bullying behaviour and targeting SB tackling.

The last chapter of part one, prior to this summative chapter examined variables related to friends. For SB victimisation, no significant findings were found; but for SB perpetration intensity it was found that if perpetrators' friends don't know what is going on in perpetrators' lives, functions as a risk factor for perpetration occurring. Consequently, suggesting that the less information friends know about each other and the less the interaction with friends, the higher the chances of perpetrators acting out a negative behaviour at school. The latter signifies the importance expressing emotions, feelings, fears, and frustrations to friends. Perhaps

that way, these individuals might not reach the point, where they feel a need to harass another person in order to release their internalised emotions and difficulties. Finally, such findings suggest that peers play an important role for SB reduction, and perpetrators should reach out for help and support as well as attempt to maintain their relationships with their friends..

***Personality and Behavioural Factors:*** The last set of factors that were explored was the ones related to participants' personality and behaviour. The independent variables were firstly tested with correlation, and then only the significant factors were regressed. From the correlations, it was shown that empathy and sub-aspects of empathy decrease SB perpetration. Such results validated that anti-bullying programs must include empathy training. On the other hand, it was also shown that although the sub-aspect of empathy, emotional contagion, decreases victimisation intensity, the sub-aspect empathic suffering increases victimisation intensity. Even though, none of the empathy sub-scales or empathy as a whole, significantly predicted victimisation or perpetration intensity, still it appears that empathy may be of use for reducing victimisation intensity as well. The latter can result in success only if the aforementioned aspects are used appropriately in anti-bullying strategies. Which must teach children how to differentiate between their experiences and others' victimisation, whilst promoting appropriate intervention.

Self-esteem also showed appeared to decrease victimisation intensity, while in addition self-esteem proved to be a significant predictor for victimisation intensity with the same direction as the correlation. These findings must be seriously taken into account and schools should try and provide additional support to young individuals with low self-esteem, and parents should try to help their children build confidence;

that way, victims might become more resilient and able to stand up to their perpetrator.

Aggression also was not a predictor for either victimisation or perpetration; however, the sub-aspect of aggression, hostility, appears to be a significant predictor and risk factor for victimisation intensity. An individual with increased levels of hostility is less liked, thus less supported by peers and most likely more provocative towards bullies; consequently the victimisation might be inevitable and more intense. Therefore, schools should give hostile individuals an opportunity to express the reasons behind such emotions, while also should provide the relevant support. For perpetration intensity, aggression and the sub-aspects verbal, physical, and hostility, seem to increase SB perpetration intensity, although none of the factors proved to be significant predictors. It may be that, other covariates such as gender or age mediated the results; nonetheless, as the correlations were significant it must be noted that aggression and its aspects should be considered for anti-bulling strategies.

Following aggression, anger showed a significant positive association with SB perpetration intensity, though once more there was not found a predictive effect. Still, it is advised that schools and parents must pay attention to young individuals that exhibit anger, as anger might be early signs of future aggressive behaviour and consequently risk of SB perpetration.

Literature (Espelage, et al., 2001; Oluyinka, 2008) has shown that impulsivity is both associated with SB and it functions as risk factor. Indeed the findings from this sample revealed that when impulsivity increases, SB victimisation and perpetration intensity increase, but there was no significant predictive effect. Still based on the correlations, it is advised that, first parents and schools secondly, should teach young people how to be patient and think before they act.

It was only fitting to explore self-control next, since impulsivity showed significant associations in terms of both victimisation and perpetration. Previous studies (Archer & Southall, 2009) have concluded that lack of self-control is associated with bullying perpetration and victimisation; however, this project found significant only in the link between self-control and perpetration intensity, though no predictive effect was found. The link suggests that increased levels of self-control decrease perpetration intensity. Perhaps, self-control is a factor that mediates anger and/or aggression; in other words, one might feel angry but if he/she has high levels of self-control, then he/she could potentially abstain from acting on the emotion. Thus, it is concluded that youngsters can benefit for life from self-control training.

Guilt is another aspect that appears correlated to SB (Menesini, et al., 2003). This project found that guilt as a whole, shame negative self-evaluation, and shame-withdraw are positively associated with victimisation intensity. Such findings suggest that victims might fall into the trap of repetitive victimisation, because they might be ashamed to ask for help or inform adults, they might become isolated, thus have no peer support and might even blame themselves for the victimisation. Under such circumstances, victims' psychological state can be at risk, depression can occur and they might even lose interest in engaging with peers or attending school. It is therefore, of great importance for educators and parents to explain to victims that perpetrators' negative actions are not the victims' fault. These individuals should be given support and advice as well as the opportunity to express such thoughts freely, without criticism. On the other hand, guilt as a whole, guilt-negative-behaviour-evaluation, and guilt-repair also appeared negatively associated with SB perpetration. Such findings support the persistence of restorative justice to include shame acknowledgment as means for forgiveness and resolving negative incidents. It is

therefore, highly advised to schools, to avoid forcing perpetrators for an apology. Instead, schools should help the perpetrator understand the consequences of his/her actions towards the victim and praise those that acknowledge shame for such actions, as it could be the first step to ending such behaviour.

Next, morals and morality were examined; morality has always been at the centre of understanding and fighting unacceptable behaviour, with experts (Hymel & Bonanno, 2014; Sims-Schouten, 2015; Perren & Gutzwiller-Helfenfinger, 2012) supporting that, less morally individuals are at risk of misbehaviour and unlawful acts. This project did not find any significant associations between morality as a general and SB victimisation intensity, however, purity and progressivism that are aspects of morality, seemed associated with victimisation intensity. The findings imply that the more one sticks to moral values and traditional ways, the less the victimisation, while the more an individual becomes progressive, the higher the victimisation intensity. Furthermore, purity functions also as a significant protective factor. Recommending that, those that deviate from purity are at higher risk for SB victimisation. Perhaps there is meaning behind such findings; if an individual is more pure then most likely conforms with the laws and norms of the micro-community, therefore, talks to teachers and parents if victimised, and thus has the opportunity for more help and support. As for being progressive, that goes against purity; if an individual is more progressive than the group then most likely sticks out from the rest of the members and becomes a target. Moreover, progressive individuals might be perceived by their peers as different, and might not conform to the norms of the micro-community, therefore they might lack peer support. Once more the advice is directed to parents and schools and suggests that children should be taught from a young age, how to respect individuality and accept others for who they are.

On the contrary, morality as a whole, harm, and in-group were significantly and negatively associated with perpetration. The meaning behind the findings is exactly what morality experts are constantly trying to explain. That basically being, that individuals with morals in general have second thoughts about acting in a negative way or, unlawful or simply wrong. More or less, in each family, school, and religion, there are attempts to teach young people some kind of morals. Perhaps the findings give further meaning to the results from the previous chapters, that being an atheist is associated to SB victimisation. Therefore, children from a young age should accept others for what they are but also to respect the norms and ethics of an institution, such as not harming another student.

***Minimisation:*** The last examined factor was minimisation, a coping strategy that has been linked to SB perpetration (Pozzoli, et al., 2012). It was found that although minimisation is not a significant predictor for SB, nonetheless, when minimisation increases, victimisation tends to decrease; a result that opposed previous literature. Thus, the advice to students and young individuals would be to only to try to perceive SB incidents for what they are. That being, the acts of some troubled individuals that perhaps have not been taught otherwise, or actions of people that have not been confronted and criticised for their negative behaviour, and even acts of vulnerable young people that express their emotions in an unhealthy way towards others.

## **Conclusion**

Concluding, bullying exists since the first educational establishments were created, perhaps just under different terminology, and there have always been attempts to reduce it if not cease it. Part two of this thesis focused on various aspects that are related to SB and examined a variety of personality factors, family and friend

related factors, as well as rigid factors such as age, in an attempt to clarify inconsistencies from other studies, cover research gaps and identify influential factors. The overall conclusion is that SB is a very complicated and negative phenomenon, affected by numerous factors, while there are strong indications that escalation of SB incidents could lead to CB involvement. Which is examined in part three, starting with the social media and the role that Internet access plays in CB involvement.

## **Part 3 - Focusing on Cyber-Bullying**

### ***Chapter 9- Social Media, the Internet, and CB***

#### **9.1. How Social Media and the Internet Differentiate CB from SB**

After concluding the examination of SB, the thesis progresses to the examination of CB with consistency, as the main aim of this study was to compare the two forms and identify how and if the included factors relate, differentiate or influence the two forms of bullying. However, some aspects as Internet access and social media use are explored only for CB.

CB is thought to be another type of harassment that arrived as technology, Internet, social media and online communication platforms evolved (DePaolis, & Williford, 2015; Bauman, 2013). Once more, like SB, the definition of CB has taken many forms (Cesaroni, Downing & Alvi, 2012), and the related research is followed by limitations. To refresh readers' memory, CB is usually presented as causing repetitive harm to others by using electronic devices (Rigby, 2002; Hinduja & Patchin, 2008; Pepler, et al., 2008; Turan, et al., 2011; Mura, et al., 2011; Modecki, et al., 2014). There are however, four apparent major differences between the two forms (Huang & Chou, 2010; Juvonen & Gross, 2008). The first one relates to the increase of CB rates, while SB seems to remain stable or slightly decrease (Rivers & Noret, 2010; Rigby & Smith, 2011; Mishna, et al., 2010; Chang, et al., 2013; Messias, et al., 2014; Hemphill, et al., 2015; Modecki, et al., 2014). The second relates to the fact that CB requires online means to manifest itself (Slonje, et al., 2013). The third one refers to the ability of one CB incident, to cause victims harm, globally (David-Ferdon & Hertz, 2007; Lenhart, et al., 2007; MacDonald & Roberts-Pittman, 2010; Mark & Ratliffe, 2011; Frisen, et al., 2012; Bauman & Baldasare, 2015; Harrison, 2015;

Kokkinos, et al., 2016). Finally, the forth relates to the perpetrators' ability to remain anonymous (Kraft & Wang, 2009; Jose, et al., 2012; Bauman & Newman, 2013; Boulton, et al., 2014; Cross, et al., 2015). It seems that there is an agreement amongst studies; for example, Mishna, Saini and Solomon (2009) further supported that the anonymity offered by is the main reason that CB perpetrators feel unstoppable and CB victims feel helpless. Others (Smith, 2015) revealed further differences, those being: 1) CB depends on at least some degree of technological expertise; 2) is primarily indirect rather than face to face; 3) perpetrators do not see the victim's reaction; 4) the bystander's role in CB is more complex; 5) The potential audience is much larger in comparison to SB; 6) Difficulty in escaping from CB.

It is apparent that these differences are related to cyberspace use; and perhaps the severity of CB consequences and the chances of developing effective policies and legislation, depend on accurate information we hold on cyber-space use (Deschamps & McNutt, 2016). Concluding, if we were to take into account only the differences between SB and CB manifestation, we could assume that the forms are independent; though, that is yet to be confirmed as the aforementioned are not the only aspects that research has examined.

## **9.2. Access to the Internet and CB**

It has to be acknowledged that the Internet and the social media create positive social and learning opportunities for all, including children and adolescents; nonetheless, it also presents a risk, particularly for those that lack experience in its use. Frequently, adults, elderly and those lacking the finances to own devices with Internet access, are left behind in comparison to young individuals, who will find Internet access one way or another. Such drastic change in our lives often leaves youngsters unmonitored when online (David-Ferdon & Hertz, 2007). Moreover, as

Internet becomes more accessible globally, the use of cyberspace increases dramatically. For example, the Australian Communications and Media Authority (ACMA) in 2014 showed that young people use the internet and social media daily, with rates up to 91% weekly; particularly, students aged 14 to 17 years old had the highest rate of Internet use in June 2010, with 89% of them reporting that the use was for communication with their friends. Furthermore, over 75% of the teenagers reported that their cellular phone and Internet access is extremely important to them (Department of Communication and the Arts, 2014). It is therefore apparent that the Internet and social media are important parts in youngsters' lives, and the risk they face when they are online appears inevitable.

But how does Internet access affect CB; Sticca and Perren (2013) reported that adolescents fear mostly public attacks against their social status, since CB incidents in the social media spread with immeasurable velocity, thus increasing the potential for harm. Nonetheless, it is not the access itself or the platforms that create the dangers, rather than the intention of people to cause harm through such platforms (Harrison, 2015). This is an argument that has been repeatedly appearing in literature and the same argument has been discussed numerous times for weapons, with one side stating that the objects cannot cause harm, only the users can, and the other side stating that weapons increase the likelihood of any user to cause harm. Obviously, we are not to compare the Internet with weapons, though both the Internet and the social media can be weaponised in the hands of individuals that are motivated to cause harm, to the point of encouraging victims to commit suicide.

Like in the argument for gun control, similarly in this field some authors (Mishna, et al., 2009) support that when technology is embraced at younger ages, it gradually becomes the dominant mean for communication, even during adulthood. As

a result, the longer individuals are exposed to social media, the higher the probability of experiencing some form of CB. Although, expertise in the Internet and social media use increase the chances of CB involvement (Xiao & Wong, 2013).

On the other hand, Athanasiades, Baldry, Kamariotis, Kostouli and Psalti (2016), stated that the most important factor is not the access to the Internet or the social media per se; instead involvement in SB as a victim or as a perpetrator is the factor with the highest predictability for CB. However, the latter findings from literature go against Chang, Chiu, Miao, Chen, Lee, Chiang and Pan (2015), who supported that Internet access and social media use by adolescents can lead to Internet addiction, and thus higher risks for CB involvement. While others (Navarro, Serna, Martínez, & Ruiz-Oliva, 2013;2012;) further supported that Internet use, particularly online communication, increases the likelihood of CB victimisation. This could occur because children, adolescents, and even adults that lack cyberspace use experience may communicate with strangers and expose themselves to online risks. From the examined literature, it can be seen that there is an argument that requires further clarification; thus this particular aspect is deeply examined in this thesis.

### **9.3. Frequency of Internet Access and CB**

According to a 2007 Pew Internet and American Life Project survey, 93% of teens are online once or more times weekly with a 60% of those owning their own cellular phones (Lenhart, Madden, Macgill, & Smith, 2007). Similar rates were reported later by Mark and Ratcliffe in 2011; out of the 265 young participants, 96% reported having home access to computers with an Internet connection, out of which 33% had a daily access to cyber space, and a 43% owned their own cellular device. The conclusion from the later study was that 54% of CB victims reported using the Internet every day, suggesting that the misuse of the access to cyberspace could pose

a risk for CB involvement. This is supported by many (Athanasias, et al., 2016) who stated that frequent Internet use is a risk factor for both CB perpetration and victimisation, and others that supported the same but only for CB victimisation (Navarro, Serna, Martínez & Ruiz-Oliva, 2013;2012;). Therefore, a question is raised that needs attention: is the frequency of Internet access that predicts or affects CB, rather than the technology per se, or the person behind the keyboard?

Moreover, it was shown (Yu & Chao, 2016) that most frequent Internet access time occurs between 18:00 and 22:00; usually this particular period of time is considered to be a relaxing and entertaining time both for youngsters and parents. However, if parents neglect or forget the Internet use time limits for youngsters due to being tired or focusing on their own issues, then it is highly likely that the risk for CB involvement will increase. Which leads to the caution spread by researchers when highlighting the need for a balanced online and offline combination of activities, and parental engagement in youngsters' lives (Good & Fang, 2015). Finally, further exploration is needed to determine whether parental monitoring and parenting style affect CB.

#### **9.4. Online Violence and CB**

There have been many discussions addressing the question whether CB is a form of cyber-aggression or simple disagreements on opinions that escalate as they would in real settings (HosseiniMardi, Mattson, Rafiq, Han & Mishra, 2015). However, in most cases, CB is perceived to be a form of online aggression and violence (Modecki, Barber & Vernon, 2013). Nevertheless, is the violence a result of real life experiences or does it come from involvement and exposure to online violent material? Tang and Fox (2016) supported that online video games that allow frequent anonymous social interaction amongst the players, often lead to uncontrollable

expression of violent comments and aggressive online behaviours. Such behaviours could be sexist comments, racism and threats, which are frequently found in online games where players engage for many hours every week. What was also found was that such exposure to online verbal/written form of violence relates to CB and consequently cyber-aggression (Tzani-Pepelasi, Ioannou, Synnott, & Fumagalli, 2017). It may well be that when individuals are exposed to such negative behaviour online they conform or reciprocate and exhibit the same violent behaviour. Moreover, another possible explanation is that frequent exposure to such violent online content might result in normalisation of the behaviour, which eventually could become the norm rather than the exception to the rule. As a consequence, and due to the existing disagreement, the aforementioned aspect is examined deeper in this thesis.

### **9.5. Parental Monitoring of Online Access**

In SB, a parent cannot monitor a child when at school; though, the parent can visit the school and check on the student's behaviour, academic progression and other aspects. However, when it comes to CB, the parent can only directly attempt to monitor youngsters when they are engaging in online communication or play games. Some parents install monitoring programs; however, as children grow and become more acquainted with technology they find ways around these applications and overpass the monitoring. Regardless, these applications and such direct ways may not be the most appropriate or the most efficient means to protect youngsters from accessing the wrong material, harmful sites and of course become involved in CB.

Liau, Khoo and Ang (2008) focused on four aspects of parental monitoring of children's Internet use: parental supervision, communication, tracking, and adolescent disclosure. The researchers revealed that parents often underestimate adolescents' engagement in risky Internet behaviours while tend to overestimate the amount of

Internet monitoring taking place at home. To give a specific example, the authors found that approximately 54% of adolescents reported visiting sites with violent material, while only 16% of parents believed that their children visited such sites. In terms of monitoring, the same project showed that about 54% of parents said they sat with their adolescents while they use the Internet, but only 33% of adolescents reported that their parents sit with them while being online. Moreover, 66% of parents talked about Internet safety, but only 37% of adolescents reported the same. It becomes apparent that either parents overestimate the amount of monitoring they provide, or adolescents have wrong perceptions about the monitoring they receive. Nonetheless, the importance is that parents need to increase communication with their children and address appropriate online behaviour and explain the reasons they restrict particular online content and sites. Parents should also attempt to delay ownership of devices given to adolescents for personal use, in order to prevent long hours of Internet access and decrease the chances of youngsters accessing harmful online content (Smith, Gradišar & King, 2015). Other projects (Livingstone & Helsper, 2008) showed that parents with higher socioeconomic status usually implement more rules about online access and implement more monitoring practices.

But how does monitoring affects CB; Khurana, Bleakley, Jordan & Romer (2015) reported that efforts from parents to regulate adolescents' specific forms of internet use were associated with reduced rates of online harassment. Specifically, the authors informed that particular site restriction is associated with lower rates of harassment; nonetheless, that occurred only by restricting access when adolescents were in their bedrooms. Therefore, concluding that parents must attempt to regulate and monitor their children when online and perhaps consider imposing stricter means in order to protect youngsters from online violence and involvement in CB. From the

existing literature, it is evident that parental monitoring is essential, particularly the first years when children start to use technological devices and platforms that facilitate communication. Thus, it is worthwhile to look further into this field and examine the level of parental monitoring effect on CB.

### **9.6. Onset of Internet Access, Social Media Use and CB**

Nowadays, children use the cyberspace and electronic devices more and more and from a very young age; for example Nikken and Schols (2015) informed that, frequently parents provide TV, game consoles, computers and touchscreens to their children from birth, even though commonly ownership of such devices is gradual as children grow. With such frequent and intense use of electronic devices, it would not be surprising if children become more experienced than parents, in terms of Internet use. Moreover, children often have these devices in their bedrooms; for example, the later study found that among the four-five year olds 15 % had one device and 3 % had two devices in their room. While among the six-seven year olds 28% own one device, 7% two devices and almost 4% own three or four devices.

In the USA, 99% of all households with children own a TV and 95% of those same households own video players, while 78% with newborns up to six years old include a computer in the household, and 83% of households with younger children also include a video game console. In addition, a typical USA eight-18 year old individual lives in a house that has at least three TV sets, three video players, three radios, three PDMPs, two video game consoles, and at least one personal computer (Roberts & Foehr, 2008). Taking into account that new generation children are born into technology, it is expected that they will spend a lot of time in social media and online; ultimately normalising such excessive use. By being abusively frequently online, the users fall into the risk of becoming involved in CB incidents, particularly

for younger individuals that do not comprehend the dangers associated to cyberspace.

However, the associated literature is somehow limited, therefore necessitates further exploration.

### **9.7. Social Media Types and CB**

There are numerous online platforms built for communication, such as Skype, Snap Chat, games, Facebook, Instagram, Twitter, Vine, etc. (Rafiq, Hosseinmardi, Mattson, Han, Lv & Mishra, 2016; Synnott, Coulias & Ioannou, 2017). However, is CB experienced and expressed the same in each of these platforms? Bauman and Baldasare (2015) showed that the first and most common online platform of CB expression is Facebook, followed by cell phone texting, emails, and the e Dirty site, YouTube, Instant Messaging and lastly Twitter. Other studies (MacDonald & Roberts-Pittman, 2010) included websites, chat-rooms, and online discussion boards. Though, it appears that Facebook is one of the most common mean for experiencing CB; Kokkinos, Baltzidis and Xynogala (2016), showed that out of the 226 Greek university undergraduates that participated in their study, 1/3 of the sample reported Facebook CB engagement at least once a month, with male students reporting more frequent involvement than females.

Others (Navarro, et al., 2013;2012;) found that children who communicate more through instant messenger might be more targeted by familiar peers, whereas those who participate in chat rooms may be more exposed to strangers' victimisation. In addition, Whittaker and Kowalski (2015) found that 99.6% of their sample reported using texting frequently, followed by e-mail (98.4%), Facebook (86.5%), YouTube (75.1%), Instagram (70.9%), and Twitter (69.4%). Out of these social media platforms where CB victimisation occurred, prevalent means were texting (56.8%), Twitter (45.5%), Facebook (38.6%), Instagram (13.7%), and YouTube (11.4%).

Similarly, De Fazio (2016) reported that adolescents perceive these platforms as highly important to them, starting with Instagram (52%), Snap chat (41%), and Twitter (33%), while at least 71% of teens having more than one social media profile. Considering the abundance of social media platforms, it can become difficult for parents to keep up with their children, while the level of CB is not the same in every platform; as some platforms offer greater protection means than others. Consequently, in this thesis, the prevalence rates of CB are further explored by looking into the prevalent social media platforms.

### **9.8. Reasons of Social Media Use and CB**

Social media initially were developed and advertised as means for interpersonal communication and entertainment (Crosslin & Golman, 2014; Kota, Schoohs, Benson & Moreno, 2014). In most instances the users create profiles to text their friends, partners, family members, to communicate with people that live far away and using the phone would prove costly, to enjoy themselves by watching videos, movies, listen to music and of course to play games with others online. Particularly, De Fazio, (2016) reported that the main online activities that European teens engage in are, watching videos (86 %), communication (75 %), downloading and sharing videos (56 %), and chatting or blogging (23 %), while 100 % of the sample, gave as first reason playing videogames. Therefore, it would be safe to say that these platforms were developed for helping people connect and feel less isolated. Nonetheless, because there are always individuals that look for means to express their negative emotions, criticise and express their aggression; the freedom of anonymity and lack of fear for physical confrontation that accompanies cyberspace, has transformed these platforms into CB battlefields. As mentioned earlier what mainly separates CB from SB, is the use of social media and the Internet. Mark and Ratliffe

in 2011 reported that out of the 265 young participants, 96% reported having home access to computers with an Internet connection, out of which 33% had a daily access to cyber space and 54% of CB victims reported using the Internet and the social media every day. Therefore, concluding that although these platforms were developed for positive interaction, nonetheless, the more frequently users go online and access social media the higher the likelihood that at least 50% of the users will get involved in some form of CB. Taking into account previous literature, it is obvious that the Internet in terms of access particular platforms, frequency, and the use of social media, plays a major role in CB involvement. Therefore, the related aspects require further attention.

### **9.9. Internet Access, Social Media and CB – Related Hypotheses**

1. Both the amount of time spent online and the onset of social media use, are related to CB victimisation. For CB perpetration, no assumption was formulated due to literature's lack of focus on this aspect.
2. Parental monitoring or regulation in terms of children's time spent online, online violence exposure, parents setting rules in terms of particular site restriction, and whether children or adolescents follow the rules are not independent from CB victimisation. For CB perpetration, no assumption was formulated due to literature's lack of focus on this aspect.

Online violence exposure and CB perpetration are related.

### **9.10. Results**

***Descriptive Statistics:*** Out of the 408 participants, 399 (98.5%) owned a mobile phone, 383 (94.6%) owned a laptop, 217 (53.6%) a tablet, 133 (32.8%) a desktop, and 7 (1.4%) other devices, all with Internet access. On average, participants spent 6.40 hours per day online ( $SD = 4.32$ , Min = 1, Max = 24) (see Figure 9.10.1 in

appendix B). When participants (405, three did not respond) were asked if they expose themselves to online violence when they are online (e.g. violent videos, games, movies etc.), 290 (71.6%) said No, 84 (20.7%) said Yes and 31 (7.7%) reported Sort of (see Table 9.10.1 below for the types of online violence that participants were exposed to). Participants that reported Yes and Sort of, said that online violence they are exposed to originates from:

Table 9.10.1. *Types of Online Violence.*

Types of Online Violence	Prevalence
Online violent games	66 (61.1%)
Violent videos (e.g. murder, beatings etc.)	46 (42.6%)
Violent movies (horror, extreme gore, etc.)	17 (15.4%)
Facebook content that includes violence (movie clips etc.)	1 (0.9%)
Combat sports	1 (0.9%)

When participants were asked whether their parents set rules regarding online access and frequency of online access, 311 (76.8%) said No, 56 (13.8%) said Sort of, and 38 (9.4%) reported Yes. In terms of particular site restriction, 279 (68.9%) reported that their parents had not set such rules, 85 (21%) said Yes, and 41 (10.1%) reported Sort of. From the participants that their parents had set rules and sort of set rules for particular site restriction and time or frequency of online access, 105 (43.2%) reported that they did follow the rules, 81 (33.3%) did not follow the rules, and 57 (23.5%) Sort of followed the rules.

Next participants were asked at what age they begun using the social media, and the observations for social media use onset had an average of 14.45 ( $SD = 6.22$ , Min = 0 indicating from birth and Max = 55) (see Figure 9.10.2 in appendix B). Participants were also asked their preferences in terms of social media platforms and sites, the results are presented in Table 9.10.2 below:

Table 9.10.2. *Social Media and Most Used Platforms*

Social Media and Most Used Platforms	Prevalence
Facebook	353 (87.2%)
YouTube	307 (75.8%)
Snap Chat	287 (70.9%)
Instagram	274 (67.7%)
Twitter	199 (49.1%)
Google +	100 (24.7%)
MSN	63 (15.6%)
LinkedIn	36 (8.9%)
MySpace	23 (5.7%)
WhatsApp	4 (1%)
Other	24 (4.8%)

Finally, participants were asked for what purpose they use the social media and the responses are presented in Table 9.10.3.

Table 9.10.3. *Purpose of Social Media Use.*

Purpose of Social Media Use	Prevalence
Talk to people	343 (84.7%)
For fun (listen to music, watch movies etc.)	328 (81%)
See what others are doing	278 (68.6%)
Text people	255 (63%)
Send emails	206 (50.9%)
Study	178 (44%)
Say things about myself (e.g. on Facebook)	148 (36.5%)
Send pictures of myself	109 (26.9%)
Play games by myself	96 (23.7%)
Play games with others	81 (20%)
Share pictures of others	58 (14.3%)
Say things about other people (e.g. on Facebook)	51 (12.6%)
Other	11 (2.2%)

**Inferential Statistics:** Correlation and Chi Square of Independence were used to examine the variables related to the Internet and social media access.

#### *Internet and social Media Access Variables and CB Victimisation-*

**Perpetration Intensity:** First, a Spearman correlation analysis was conducted among time spent online, onset of social media use, and CB victimisation intensity (see Figure 9.10.3 in appendix B). Results showed that there was a significant small negative correlation between onset of social media use and CB victimisation intensity ( $r_s = -0.12, p = .016$ ), indicating that as onset of social media use increases CB

victimisation intensity decreases. The same process was followed for CB perpetration intensity, but there were no significant associations between time spent online, onset of social media use, and CB perpetration intensity.

#### *Internet and social Media Access Variables and CB Victimisation-*

*Perpetration Occurrence:* Moreover, a series of Chi-Square Test of Independence were conducted to examine whether CB victimisation occurrence and parental monitoring or regulation in terms of children's time spent online, online violence exposure, parents setting rules in terms of particular site restriction, and whether children or adolescents follow the rules were independent. However, results were non-significant indicating no apparent significant relationships between the independent variables and CB victimisation occurrence.

Next, a Chi-Square Test of Independence was conducted to examine whether CB perpetration occurrence and online violence exposure were independent; the results of the Chi-Square test were significant ( $\chi^2(4) = 19.45, p < .001$ , Fisher's two tailed exact test = 18.54,  $p < .001$ ) (see Table 9.10.4 in appendix B). Likewise, the same process was followed for parental monitoring in terms of time limit when youngsters are online, parents setting rules in terms of particular site restriction and whether youngsters follow such rules or not and CB perpetration occurrence; however, no significant results were found.

### **9.11. Discussion**

Chapter nine focused on the Internet and social media use. Starting with general use of electronic devices with Internet access. Results showed that almost all of participants owned a mobile phone and a laptop, with approximately 2/3 owning a tablet and other devices, all with Internet access. The findings agree with Mishna, et al. (2009) that stated that there is abundance of devices and means for online

communication and interaction. It could be assumed that the more devices one has with Internet access, the more he/she will engage with others in social media, thus the more the risk of Internet addiction and consequently CB involvement. If that is the case, then those with more hours online are at higher risk for CB involvement; results showed that on average, participants spent 6.40 hours per day online, with a maximum of 24 hours access. Therefore, returning to previous research (Mark & Ratliffe, 2011; Athanasiades, et al., 2016) that suggested that the misuse of cyberspace access is the factor that leads to higher risk for CB involvement. Understandably, researchers (Good & Fang, 2015) appeal to parents to regulate children's online access and activities. Based on such assumptions, if the times Internet users spend online was examined for relationships with CB. However, the expectation was rejected, as there were not found any significant results. Consequently disagreeing with previous projects (Athanasiades, et al., 2016), though, the opposing results could be an outcome of mediating factors such as age, but could only be verified with a replication and follow up future study.

Next online violence exposure and whether it is associated to CB victimisation and CB perpetration was explored, and it was expected that the two variables are not independent. The findings showed that the majority of participants were not exposed to online violent content. Though, the ones that did informed that, it was mostly by playing online violent video games and watching violent videos. Regardless, the 28.4% of participants that exposed themselves to some sort of online violent content were at higher risk for CB perpetration, as it was shown that CB perpetration occurrence and online violence exposure are related to one another. Consequently, verifying the assumption and suggesting that, when individuals are exposed to online

violence frequently, they may come to a state where they normalise violent behaviour and thus adopt it.

Following the previous aspect, parental monitoring of children's Internet access and time aloud online was explored, and it was found that parents of nearly 2/3 of the participants do not set rules in terms of Internet monitoring. Moreover, parents of similar proportion had not set rules in terms of particular site restriction. It is apparent from the rates that the majority of participants were accessing the Internet unregulated and could fall into any kind of risk since their parents would not even restrict particular sites, such as pornographic material. Subsequently agreeing with Liau, Khoo and Ang (2008) who reported that approximately 54% of adolescents visit sites with violent material, but only 16% of parents believed that their children visited such sites. Such differences in rates of perceived Internet regulation could possibly occur because parents may trust their children or they may think their children are not capable or skilled to access such sites. It is also evident that the regulation is minimal, which poses a great risk for CB involvement (Khurana, et al., 2015). It should be noted that even if parents set such rules, there is no telling whether youngsters will follow the rules. In this project, it was found that approximately 1/3 of the sample 33.3% did not follow the rules when their parents set such boundaries. Therefore, suggesting that even with Internet use regulation and site restriction, for some the risk remains. Perhaps the latter assumption could explain why the results from the Chi Square of Independence for the Internet regulation and site restriction variables showed no significant results in relation to CB victimisation and perpetration.

Participants were also asked at what age they begun using the social media; the findings showed that an average of onset is 14.45 years old, however, the minimum was from birth and the maximum 55. Suggesting that most participants

acquaint themselves with social media after primary school, but there are those that their parents created accounts on their behalf from birth. There were also participants that started using the social media at a much later age such as at 55 years old, but that may only be because the social media spread majorly the past decade. Related to the latter, it was expected that the onset of social media use and CB are associated; indeed, it was found that as the onset of social media use increases, CB victimisation intensity, decreases. Understandably, as youngsters grow older they gain the maturity to recognise the online risks therefore become more cautious and thus more protected from CB. Opposing, no such results occurred for CB perpetration intensity. The findings suggest that parents must attempt to delay unregulated Internet access until children are mature enough to comprehend online risky behaviours.

Next the types of social media that participants mostly used were examined, and it was found that the most preferred platform was Facebook followed by YouTube, Snap Chat and Instagram, as Bauman and Baldasare (2015) had previously reported. Implying, that the platform where the most frequent CB victimisation occurs is Facebook. Therefore, it is advised that parents should monitor their children's Facebook interaction and perhaps enquire their children about their Facebook friends. Not to be confused with taking control of children's Facebook account as most likely an act like that will result in children hiding information from their parents.

Lastly participants were asked to chose the reasons they use the social media and Internet for. Results showed that, the majority of participants use the social media to communicate with others and for entertainment. However, amongst the reasons, many participants used the platforms in order to see what others are doing, say things about them, to send their pictures to others, to share pictures of others, and to say things about other people. These reasons are also the reasons that attract CB

victimisation and CB perpetration. When individuals post personal information or photos online, it is highly likely that someone will comment on the content; frequently the comment may not be positive, therefore, leading to a confrontation, escalation and thus CB involvement. Moreover, some share others' pictures online or say things about others without permission from the owners; which could be perceived as CB perpetration, particularly if the content is accompanied by a negative comment. Regardless, the prevalence rates of Internet and social media reasons of use from this study agree with previous literature that, suggested social media and Internet use for interpersonal communication (Crosslin & Golman, 2014; Kota, et al., 2014).

## **9.12. Conclusion**

This chapter focused on the Internet and social media use, and examined prevalence rates for related aspects, such as online violence exposure and preferred platforms for communication or entertainment. From the analysis, the main aspects that should be kept are three: platforms' developers such as Facebook must find stricter means to protect the users; parents should consider delaying their children's Internet and social media use up to a mature enough age when youngsters are equipped to recognise online dangers; and exposure to online violence is associated to CB perpetration. Concluding, it can be seen that CB victimisation and perpetration differentiate in terms of the examined aspects, and more insightful findings may be revealed in the next chapters, where the CB victim is studied in greater detail, followed by the CB perpetrator.

## ***Chapter 10 - CB Victim***

### **10.1. Cyber-victimisation**

After examining SB, it was appropriate to examine CB with the same focus and detail, starting with the current chapter that addresses the CB victim. CB victimisation is quite different from SB victimisation, particularly if we take into account that total strangers who can remain anonymous can target CB victims. CB victims at times may not even know the reason they are attacked, while the attack can be shared online with millions of people. For example, CB perpetrators can target a victim because the victim's make-up is too strong and the attack can occur with a Facebook post and shared with everyone and anyone. As a result, if others begin to share the same opinion, the victim receives notifications from Facebook regarding the post and messages from people that might not even live in the same country. Now, having multiple people insulting the victim, criticising and commenting on the appearance, can have an extremely negative effect on the victim's psychological state. Ultimately, such events could lead to depression, withdrawal, isolation and numerous other consequences. Besides, it is in the human nature to want to be liked by others, and such attacks have the exact opposite result, which is rejection by many (Lipton, 2011).

But is not just posts that victims may have to face, it may be harassment via texting and repetitive negative comments, cyber-stalking, even personal calls and emails, as frequently such platforms require an email address and a mobile number to complete registration. In addition, CB victims face perhaps permanent reputation damage, since public comments and posts can remain online forever and could be disseminated anywhere where there is Internet (Lipton, 2011). Additionally, CB

victims may suffer unauthorised dissemination of their personal details, even home addresses; CB perpetrators can easily extract such information, if victims are not cautious enough to conceal it . As a result, perpetrators may even show up on the doorstep of victims' houses or schools. Such was the case of Amanda Todd who committed suicide after repetitive online harassment and even physical attacks by strangers outside her school.

There are of course measures taken by the platforms to protect victims; however, these restrictions are only going to force perpetrators to retract their posts, but that is not permanent, since such information can be stored in someone's computer and could be reposted. Of course, victims could block attackers but the attacker could easily create a new profile and continue victimising the same individuals and many others. Such devotion and persistence from the perpetrators implies that perhaps victims have no say in the likelihood of being victimised. Nonetheless, victims could protect themselves by taking a few measures, such as reporting the harassment to the platform's administrators, or create a new profile, but above all they could learn how to safely use cyberspace before engaging in any kind of online communication. However, in the case of minors, the latter is not entirely achievable since youngsters do not perceive the severity of online risks, thus it is the parents' responsibility to teach their children how to safely surf the net (Saridakis, Benson, Ezingeard & Tennakoon, 2016).

## **10.2. Frequency of CB Victimisation**

The frequency of CB victimisation has been increasing rapidly the past few years, as access to cyberspace has been increasing and particularly by children and adolescents. For example, Holfeld and Leadbeater (2015) examined the frequency CB behaviors among 714 Canadian students and revealed that children's CB victimisation

experiences were relatively stable across the school year; however, the most frequent experiences occurred to those attending sixth- grade students that had greater access to the Internet and use of technology. The latter authors also showed that girls suffered more frequent victimisation; which logically occurs as girls tend to engage in indirect forms of bullying or because girls engage more often in online conversations with their friends (Holfeld & Leadbeater, 2015). Moreover, the frequency appears to increase during after-school hours; implying that youngsters frequently utilise social media to continue unfinished conversations and disputes initiated at school. The same research also presented that youngsters often do not realise that CB behaviours result in severe consequences (Holfeld & Leadbeater, 2015). Leading to the question, is CB so common that has been normalised or more awareness of the phenomenon is in need in order for young people to perceive the severity of their actions?

Sakellariou, Carroll and Houghton (2012) reported that in Australian schools, students in secondary stage are the most victimised with 11.5% of students reporting at least one experience of CB victimisation during a school year; whilst the most frequent mean being CB via a mobile text or online. Likewise, DePaolis and Williford (2015) found that the most frequent CB victimisation (17.7%) occurred with online games, while less than half of the victims knew the identity of the CB perpetrator. The latter authors also reported that the CB victimisation rates were much higher than the SB victimisation rates; however, they also found that there were no differences in frequency of CB victimisation amongst the genders, but boys were significantly more likely to have been victimised through online games in comparison to girls. It can be seen that CB frequency rates are indeed lower than SB, but considering the immense impact on victims, it is concluded that the whole field requires further attention.

### **10.3. CB Victim Characteristics**

CB victims do not support Olweus's (1991) stereotype of traditional SB victims, which presents them as individuals with exceptional physical characteristics (e.g. weak, overweight) (Roland, 1989). Cyber victims seem to be less competent with low self-esteem and score lower on intelligence tests in comparison to non-involved to CB individuals, while are more likely to be female (Beckman, et al., 2013). CB victims share some characteristics with SB victims such as being less popular among their peers, cautious, sensitive, quiet, with more passive behaviours, experience increased anxiety, consider themselves unattractive (Stephenson & Smith, 1989), while often are socially isolated (Nishina, Juvonen & Witkow, 2005). CB victims are also more prone to Internet risk behaviours and are more likely to experience SB by their peers and the perpetrator that victimises them at school (Chang, et al., 2013).

Comparing the consequences for CB victims and SB victims, Litwiller and Brausch (2013) mentioned that CB victims are more likely to experience negative psychological consequences, in comparison to SB victims. This is understandable; a SB victim could try and resolve the matter face to face or with adults' help, while a CB victim often is not given that opportunity as CB perpetrators have the ability to remain anonymous. Regardless, as mentioned earlier, research has indicated that there is an overlap between the two types of bullying; consequently, SB victims tend to be CB victimised, with girls being more likely to be CB victims than boys, and boys being more likely than girls to be CB perpetrators (Tarablus, et al., 2015). Others (Bayraktar, Machackova, Dedkova, Cerna & Ševčíková, 2015; 2014;) specified that CB victims exhibit higher self-control, lower offline aggression but lower levels of self-esteem although they have better parental attachment. Moreover, CB victims may

be the ones suffering the harassment; nonetheless, they also show a tendency for violence equal to CB perpetrators (Sari & Camadan, 2016). Finally, Sontag, Clemans, Graber and Lyndon (2011) found that CB victims are often reactive aggressors resulting in the role switch to CB perpetrators, which is further discussed in chapter 12.

#### **10.4. Most Prevalent Platforms for CB Incidents**

As seen in chapter nine, according to literature the most preferred platform where CB occurs, is Facebook; nonetheless, in this part we are taking this a step further and look into the literature for the most frequently reported platform for CB victimisation. But once more Facebook came at the top, with research (Saridakis, Benson, Ezingeard & Tennakoon, 2016) reporting that victims often find it difficult to remain protected from victimisation; as Facebook's and similar platforms' privacy tools are not easy to access or control. On the other hand, Benson, Saridakis and Tennakoon (2015), had previously concluded that the platforms per se, do not pose a risk for victimisation; instead, it is the level of CB victimisation prevention skills that one has that play a bigger role. Perhaps, as children get older, their ability to understand the online dangers increases, consequently they begin to gradually anticipate victimisation and thus prevent incidents. Lastly, De Fazio (2016) supported Facebook that is not at fault for the CB victimisation incidents, taking place in its cyber premises; instead it is the misuse of such platforms that results to CB. The latter author suggested that the more adolescents and young people in general spent time online, the more the likelihood for CB victimisation exposure.

#### **10.5. Ways of CB**

Online behaviours are different from real life behaviours; nonetheless, there are similarities between SB victimisation and CB victimisation (Burns & Roberts,

2013), with researchers signifying an overlap (Randa, Nobles & Reyns, 2015).

Particularly, some of the most prevalent CB victimisation means are numbered in

Table 10.5.1 (see Nuccitelli, 2012, for more details):

Table 10.5.1. *Most prevalent CB victimisation means according to Nuccitelli (2012).*

CB victimisation type	Behaviour
Exclusion	The victim receives provocative messages and excluded from social activities
Flaming	A passionate online argument that frequently includes vulgar language and typically occurs in public communication environments for peer bystanders to witness; the victim suffers attempts of domination
Exposure	This tactic includes the public display, posting, or forwarding of the victim's personal communication or images
E-mail threats and dissemination	Victims are induced with fear by threats and other members in the group are informed of the alleged threat
Harassment	Frequent, severe and hurtful messages towards the victim
Phishing	This tactic requires tricking, persuading, or manipulating victims into revealing personal information about themselves
Impersonation	Impersonation or "imping" as a tactic can only occur under the protection and freedom of online anonymity. Victims find themselves often to having to prove to others that they are the real ones and not the cloned profile built by the CB perpetrator. Nonetheless, victims do suffer criticism and harassment if the CB perpetrator posted inappropriate messages whilst impersonating the victim
Denigration	Also known as "dissing," describes when victims receive or witness, cruel rumours, gossip, and untrue statements about themselves. Also known as trolling
E-mail and Cell phone Image Dissemination	Victims find their personal images circulating online without their authorisation
Images and Videos	Images and videos of the cyber victim are emailed to peers, while others are published on video sites such as YouTube
Interactive Gaming Harassment	Victims may be locked out of the game, be swore at, threatened, and suffer reputation tarnish
Pornography and Marketing List Inclusion	Victims are included in pornography and/or junk marketing, e-mailing, and instant messaging marketing lists; as a result cyber victims receive thousands of emails and instant messages from pornography sites and advertising companies
Cyber Stalking	The victim receives threats of harm, intimidation, and/or offensive comments sent through personal communication channels
Griefing	The victim suffers grief (through embarrassment or shame) induced by the CB perpetrator
Password theft and lockout	The victim finds him/herself locked out of the online accounts as the perpetrator stole the password and used it to restrict the victim's access from the accounts, whilst send provocative messages to the victim's friends and family
Website creation	The victim finds him/herself with a whole website developed by the perpetrator; the site's purpose is to harm the reputation of the victim
Voting/polling booths	Victims are entered in voting booths without their permission; others vote on embarrassing categories related to the victim
Bash Boards	Online bulletin boards where children post anything they choose; generally, bash boards encourage postings that are mean, hateful, malicious, and embarrassing
Chicanery	A tactic similar to phishing, where the victim is tricked into divulging secrets, private information, and/or embarrassing information about themselves and then the CB perpetrator publishes that information online
Happy Slapping	The victim is physically attacked or embarrassed in person and an accomplice video records or takes pictures of the incident, which later are uploaded, online
Text Wars and Text Attacks	The victim suffers multiple attacks via emails and messages by a group of SB perpetrators
Sending malicious code	The victim receives a message or an email with a link, and when that is opened the malicious code harms the victim's ICT
Warning Wars	Victims find themselves warned by their Internet Service Providers (ISP) that their account will be terminated or they will suffer some kind of discipline because others reported them as abusers. In reality, the CB perpetrator used a legitimate tool for unethical purposes
Screen Name Mirroring	The victim finds that there is another person with a very similar profile name that often tries to be friends with the victim's friends and post on their pages
Cyber Drama	Gossip that was not supposed to be shared on a blog or a flame war that ends after a few messages
Sexting	The victim receives sexually explicit images or text content that was not expected or wanted. Frequently the victim also sends such content; thus putting themselves in risk of these images or content to be disseminated without authority
A pseudonym	Victims are attacked by individuals with pseudonyms as a result they are not aware of the real identity of the CB, who can often be attending the same school
Instant Messaging	Victims receive provocative, threatening, and degrading messages, leading often to escalation in confrontation in the real world

## **10.6. Reasons of CB Victimisation**

Research (Ryan & Curwen, 2013) supports that there are numerous serious and not so serious reasons that CB in general occurs. Referring specifically to CB, Willard (2004) suggested that CB occurs mainly for three reasons. a) The bully does not encounter the victim face to face, therefore, cannot realise that the victim can be hurt; b) It is such a frequent behaviour that leads the bully to believe that it is acceptable; and c) The mistaken feeling of privacy that the bully believes to have online. In addition, Williams and Guerra (2007) suggested that additional reasons are the negative school climate and lack of peer support. Others (Felmlee & Faris, 2016) informed that CB victimisation frequently occurs between members of the LGBTQ and mostly by ex friends and ex partners. Likewise, Saha Srivastava (2014) reported that CB victimisation against women is on the raise and it is exhibited in more severe ways than for men (e.g. stalking, obsessions, pornographic material disseminated without authorisation etc.). Finally, Corby, Campbell, Spears, Slee, Butler and Kift (2016; 2014;) stated that revenge is a common reason for CB victimisation and perpetration; the latter may be revenge from ex partners, revenge for a disagreement at school, and revenge for even a misunderstanding initiated on other grounds that escalated online.

## **10.7. CB Victimisation and Interaction in Other Settings**

As seen above, due to revenge and other numerous reasons SB can escalate to CB; however, CB can also escalate to SB; while both can lead to the same consequences (Chan & La Greca, 2016; Wright, 2016). For example if a student comments negatively on a classmate's photo that was posted online, it is only natural that the second will show some kind of dis-likeness for the first. If however, the comment or the action is far more severe, such as, disseminating the victim's photo

online accompanied by hurtful comments, then it is possible that the victim might attack verbally or physically the first when at school. Madlock and Westerman (2011) concluded that the majority of the instances that hurtful cyber-teasing occurs, leads to escalated face-to-face verbal aggression and further escalation into physical violence. This aggression and violent behaviour has also been noticed to occur in reverse as mentioned previously. According to Yahner, Dank, Zweig and Lachman (2015) it is quite common for individuals in their teens that experience dating violence, to frequently experience cyber attacks by the same dating partner. Likewise, King, Walpole and Lamon (2007) explained that the behaviour of online gangs is an outcome of feeling the need to belong to a group either online or offline; and such needs might lead to CB engagement, in order to get approval from peers.

This escalation, or overlapping has been flagged multiple times in research (Tokunaga, 2010; Sakellariou, Carroll & Houghton, 2012); such as in Sari and Camadan (2016) who found that for many young adolescents cyber experiences often mirrored experiences in their face-to-face peer interactions, with a 42% of victims being both SB and CB victimised. Likewise, McCuddy and Vogel (2015;2014;) suggested that often CB behaviour and involvement indicates involvement in criminal behaviour, such as participation in online and offline criminal activities and gang memberships. Such groups or gangs often attack victims offline and then continue the harassment online, such as in the case of happy slapping. Therefore, it is concluded that is possible that the overlapping or escalation is just a vicious cycle that will not end unless one of the sides forfeit.

## **10.8. What Stops CB Victimisation**

Research has shown that one way to stop this contagious effect of CB is if schools implement CB specific intervention strategies, such as the ViSC programme

(Gradinger, Yanagida, Strohmeier & Spiel, 2016). However, despite the seriousness of the phenomenon, there are not many strategies for schools to use, and those that exist occasionally, produce a negative effect. In such occasions, Frisén, Hasselblad & Holmqvist (2012) mentioned that the only thing that stops this aggressive behaviour at school or online, is the victim's transition to another school or changing the way the victim reacts to such behaviours. However, a strategy called cyber mentoring and was developed by a UK charity in 2009, has shown promising results. Cyber mentors are trained students that mentor on demand their peers, and refer CB victims to senior cyber mentors and counsellors for further support (Slonje, Smith & Frisén, 2013). Others (Navarro, et al., 2013;2012;) suggested that parent mediation could be of use when CB victimisation incidents occur, such as communicating with children, supervising children when online, and even installing software that allows parents to monitor their children's behaviour online. Nonetheless, the victims' perceptions of what stops CB victimisation has not been studied in depth.

However, some studies have shown that CB could be prevented before there is a need for intervention. For example, Perren, et al., (2012) reported that if schools raise awareness of the CB risks and create a trusting relationship with students where they can talk to a teacher if an incident occurs, then CB victimisation or at least repetition could be prevented. Moreover, schools can use empathy training, and teach values, as well as motivate students to take action when CB victimisation occurs. In addition, adult supervision and restricting the time spent online when technology is used may prove helpful; while the latter authors also stressed the importance of empowering children from a young age and promoting resilience. Finally, from the literature, it becomes obvious that SB and CB victims face similar consequences if not the same, and there appears to be a continuum of SB in CB victimisation and the

opposite, therefore, with consistency the CB victim is examined in this chapter in great detail.

### **10.9. CB Victimisation – Related Hypotheses**

Taking into account previous literature on CB victimisation, certain assumptions were formulated:

1. Being victimised in real life settings can be a factor for CB victimisation.
2. Blaming the technology for CB victimisation can result in continuous CB victimisation.
3. It is assumed that time spent online, online violence exposure, parental monitoring of time spent online, parents set rules for Internet site restriction, whether rules are followed, and onset of social media use, play a role in CB victimisation.

### **10.10. Results**

***Descriptive Statistics:*** The majority of participants (256, 62.75%) reported that they had not experienced CB victimisation; 29 (7.11%) reported Sort of CB victimised and 123 (30.15%) reported Yes. In terms of frequency, out of the “Sort of CB victimised and definitely CB victimised”, the majority 85 (21%) reported “more than once” (see table 10.10.1 in appendix B for frequencies).

In terms of victimisation intensity, the average was 5.8 ( $SD = 5.23$ , Min = 0, Max = 26). The questions of the victimisation intensity scale also indicated frequency of victimisation means; therefore, frequencies are presented in table 10.10.2 in appendix B.

Participants were also asked who CB victimised them the most, and the responses are presented in Table 10.10.3.

Table 10.10.3. *Who CB victimised you the most.*

Who CB victimised you	Prevalence
Girls in my grade	78 (51%)
Someone popular	40 (26.1%)
Someone I don't know	38 (24.8%)
Boys in my grade	36 (23.5%)
Older boys	31 (20.3%)
Someone with many friends	30 (19.6%)
Older girls	23 (15%)
An adult	14 (9.2%)
Younger boys	10 (6.5%)
Someone smart	10 (6.5%)
Someone strong	8 (5.2%)
Friends and ex friends	7 (4.9%)
Younger girls	6 (3.9%)
Sister, family members, ex boyfriend and girlfriend, abusive ex partner, racist, anonymous	11 (7.7%)

Participants were also asked in which platforms did the victimisation occur, and the responses are shown in Table 10.10.4.

Table 10.10.4. *Platforms where CB victimisation occurred.*

Platforms where CB victimisation occurred.	Prevalence
Facebook	112 (74.2%)
Twitter	25 (16.6%)
Snap chat	14 (9.3%)
Instagram	13 (8.6%)
MSN	12 (7.9%)
Ask.fm	6 (4.2%)
YouTube	4 (2.6%)
WhatsApp	4 (2.6%)
LinkedIn	3 (2%)
Skype	3 (2%)
Tumblr	2 (1.3%)
And other platforms included: Livewire, Showbiz.ie, Bibo, Yik Yak, emails, texts)	< 2%

Next participants were asked how were they CB victimised, and the responses are presented in Table 10.10.5.

Table 10.10.5. *How were you CB victimised.*

How were you CB victimised	Prevalence
Spread rumours	75 (49%)
Threats	68 (44.4%)
Kept swearing online for others to see	56 (36.6%)
Shared victims' private information including photos, without permission	45 (29.4%)
Exclusion from a group	44 (28.8%)
Made fun of victims with insults, offensive comments and texts	13 (9.1%)
Used victims' personal information and bought things online	7 (4.6%)
Made nasty comments about victims' looks and appearance	7 (4.6%)
Impersonation	3 (2%)
Created accounts with purpose to degrade victims	2 (1.4%)
Told victims to commit suicide	2 (1.4%)
Abuse, racism, jokes about an illness, defamation, made plans with students from other schools to find victims and physically attack	< 2%

Participants were also asked what was their perception on the reasons they had been victimised, and the responses are shown in Table 10.10.6.

Table 10.10.6. *Why were you CB victimised.*

Why were you CB victimised.	Prevalence
Arguments in other settings	73 (45.9%)
Victims' looks	69 (43.4%)
Victims' achievements	26 (16.4%)
Opinions that I post online	23 (14.5%)
Victims' family	14 (8.8%)
Photos I post online	13 (8.2%)
Sexual preferences	10 (6.3%)
Religion	9 (5.7%)
Ethnicity	8 (5%)
Victims' family financial status	8 (5%)
I don't know, no reason	6 (4.2%)
And other reasons included: because of rumours, disagreement, weight, clothes, social status, epilepsy, jealousy, relationships	< 2%

Moreover, participants responded if they had been victimised by the same CB perpetrator in other settings, but the majority (126, 31%) reported No, and 58 (14.2%) said Yes. Moreover, the majority (80, 20%) believed that the attack would have not occurred without the social media use, 61 (15%) said Yes, and 39 (9.56%) did not know. Next, participants were asked how the victimisation stopped and the responses are presented in Table 10.10.7.

Table 10.10.7. How did CB victimisation stop.

How did CB victimisation stop	Prevalence
I stood up to the bullies	61 (37%)
They just left me alone	48 (29%)
It stopped when I left school	36 (22%)
My parents intervened	24 (14.5%)
My friends intervened	24 (14.5%)
My teachers intervened	23 (13.9%)
They felt guilty	20 (12%)
I stopped using the site I was being victimised in	12 (7.3%)
I changed the reason I was cyber-bullied for	10 (6%)
The authorities intervened	9 (5.5%)
Blocked them	9 (5.5%)
The bully's friends intervened	8 (4.4%)
They felt sorry for me	8 (4.4%)
The bully's parents intervened	5 (3%)
The school intervened	4 (2.4%)
I changed schools	4 (2.4%)
I reported the account	3 (1.8%)
Ignored them, matured, I talked to them to resolve the incidents	< 2%

When participants were asked if anyone tried to help them when they were victimised, the majority ( $N = 84$ , 21%) responded No, 68 (17%) said Yes, and 18 (4.4%) reported Sort of. Finally, out of the ones that sort of and definitely received help from others, the majority (38, 9%) succeeded in stopping the CB victimisation, 34 (8.3%) Sort of succeeded and 15 (3.7%) did not stop the victimisation.

**Inferential Statistics:** Finally, in chapter 10 two variables were tested to see if these predict CB victimisation intensity, those being: victimisation in other settings by the same CB perpetrator, and victims' perceptions regarding the effect of social media on their CB victimisation.

**Regression Models for CB Victimization Intensity:** Before conducting the linear regression, the assumptions of normality of residuals, homoscedasticity of residuals, absence of multicollinearity, and the lack of outliers were examined (see Figure 10.10.4, Figure 10.10.5, Table 10.10.8 and Figure 10.10.6 in appendix B). The results of the linear regression model were significant,  $F(3,175) = 12.27, p < .001, R^2 = 0.17$ , indicating that approximately 17% of the variance in CB victimisation

intensity is explainable by encountering the CB attacker in other settings where harassment pre-existed, and by victims' perceptions of the social media effect on their CB victimisation. However, when looked further into the categories of the independent variables, only Yes category of victims' perception of social media effect on their victimisation significantly predicted CB victimisation intensity,  $B = 4.81$ ,  $t(175) = 4.57$ ,  $p < .001$ . Suggesting that moving from the I don't know category to the Yes category of victims' perception will increase the mean value of CB victimisation intensity by 4.81 units on average (see Table 10.10.9).

Table 10.10.9. *Results for Linear Regression with CB victimisation in other settings by the same perpetrator and CB victims' perception on social media role predicting CB victimisation intensity.*

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	6.49	0.83	[4.85, 8.14]	0.00	7.79	< .001
CB victimisation in other settings by the same perpetrator YES	1.23	0.90	[-0.56, 3.01]	0.11	1.36	.176
CB victims' perception on social media role NO	1.28	0.98	[-0.64, 3.21]	0.12	1.31	.191
CB victims' perception on social media role YES	4.81	1.05	[2.74, 6.89]	0.43	4.57	< .001

*Note.* Results:  $F(3,175) = 12.27$ ,  $p < .001$ ,  $R^2 = 0.17$   
 Unstandardized Regression Equation: CB victimisation intensity = 6.49 + 1.23\*CB victimisation in other settings by the same perpetrator YES + 1.28\*CB victims' perception on social media role NO + 4.81\*CB victims' perception on social media role YES

Moreover, as CB victimisation intensity was introduced in this chapter, the possibility of CB victimisation intensity predicted by the independent variables that were presented in chapter nine was examined. Those being: time spent online, online violence exposure, parental regulation of time spent online, whether parents set rules in terms of particular site restriction, whether CB victims follow such rules, and the onset age of social media use. Once more assumptions were taken into account (see Figure 10.10.7, Figure 10.9.8, Table 10.10.10 and Figure 10.10.9 in appendix B). The results of the linear regression model were significant,  $F(7,238) = 2.28$ ,  $p = .029$ ,  $R^2 = 0.06$ , indicating that approximately 6% of the variance in CB victimisation intensity is explainable by time spent online, online violence exposure, parental monitoring of

time spent online, parents set rules for Internet site restriction, whether rules are followed, and onset of social media use. However, when looked into the categories of the variables further, only the Yes category of online violence exposure significantly predicted CB victimisation intensity,  $B = 2.57$ ,  $t(238) = 3.17$ ,  $p = .002$ . Based on this sample, this suggests that moving from the No to Yes category of online violence exposure will increase the mean value of CB victimisation intensity by 2.57 units on average (see Table 10.10.11).

Table 10.10.11. Results for Linear Regression with time spent online, online violence exposure, parental monitoring of time spent online, parents set rules for Internet site restriction, whether rules are followed, and onset of social media use predicting CB victimisation intensity.

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	5.56	1.16	[3.28, 7.84]	0.00	4.80	< .001
Time spent online	-0.05	0.08	[-0.21, 0.10]	-0.04	-0.67	.501
Online violence exposure Sort of	1.22	1.30	[-1.35, 3.78]	0.06	0.93	.351
Online violence exposure Yes	2.57	0.81	[0.97, 4.17]	0.21	3.17	.002
Parental monitoring of time spent online Yes	-0.58	0.81	[-2.18, 1.02]	-0.05	-0.72	.475
Parents set rules for Internet site restriction Yes	1.53	0.84	[-0.12, 3.19]	0.14	1.83	.069
Whether rules are followed Yes	0.11	0.82	[-1.51, 1.73]	0.01	0.13	.893
Onset of social media use	-0.05	0.05	[-0.14, 0.05]	-0.06	-0.99	.323

*Note.* Results:  $F(7,238) = 2.28$ ,  $p = .029$ ,  $R^2 = 0.06$   
 Unstandardized Regression Equation: CB victimisation intensity = 5.56 - 0.05\*Time spent online + 1.22\*Online violence exposure Sort of + 2.57\*Online violence exposure Yes - 0.58\*Parental monitoring of time spent online Yes + 1.53\*Parents set rules for Internet site restriction Yes + 0.11\*Whether rules are followed Yes - 0.05\*Onset of social media use

## 10.11. Discussion

Chapter 10 presented CB victimisation, prevalence rates, frequency of CB victimisation, the intensity of CB and the most prevalent online platforms that CB victimisation occurs, what stops CB victimisation, engagement with the CB perpetrator in other settings, the perceived role of the social media, and the effect of help received when victimised. In addition, regression analysis was conducted to reveal any significant predictors for CB victimisation intensity. Results showed that in terms of rates, 37.26% of participants were sort of and definitely CB victimised at least once in their life. Such rates are relatively close to Modecki, et al., (2014) who

suggested victimisation rates between 2.2% to 56.2%; while also showing the CB victimisation rates are lower than SB victimisation rates (60.7%). Perhaps, CB has become so normalised that certain CB acts are not perceived as bullying, consequently might not be reported, or it may be possible that due to the age of the particular sample, the majority of participants had acquired the skills and maturity to avoid victimisation. Moreover, the majority of victims (21%) had been CB victimised “more than once”. On the other hand, the “all the time” category was represented by only 0.9%. The findings agree with previous research (Sakellariou, et al., 2012) that proposed CB as an increasing phenomenon but not as settled yet as SB. Perhaps the rates are explainable by the suggested overlap between the two forms of bullying or it could be that one is an extension or escalation of the other. Moreover, the results imply that repetition may not be a criterion that defines CB; instead, one harmful act could be perceived as CB victimisation, depending on the severity of the event and severity of the consequences.

Furthermore, the four most prevalent categories for who victimised the victims the most, were 51% for girls in the same grade, 26.1% for someone who is popular, 24.8% for someone the victim did not know, and 23.5% for boys in the same grade. The first implies that perhaps indeed girls are more involved in CB than boys are; but it also rejects the power imbalance in terms of age, keeping in mind that the sample was predominantly females. In addition, it suggests that the overlap between SB and CB is real, as CB may start at school and continue online; this is apparent since 84.5% of the victims were CB victimised by classmates. In terms of power imbalance, it might not be age, but status as the next most prevalent category was someone popular. Once more, it is assumed that victims were familiar with the perpetrator from other settings, as they appear to be aware of the perpetrator’s popularity level. Finally, the

third most prevalent category was someone they did not know; thus agreeing with Lipton (2011) when stating that the Internet could be quite unsafe and unpredictable in terms of whom, when and for what reason one could attack someone else.

Regarding what were the most prevalent platforms that victimisation took place, results were unsurprisingly predictable as in chapter nine it was shown that Facebook is the most used platform. As expected, Facebook prevailed once more with 74.2%; such findings have been previously flagged in other projects (Saridakis, et al., 2016). Therefore advising Facebook developers to seriously consider this Facebook CB phenomenon and take action. The platform includes tools that could help victims decrease victimisation; however, this depends also on the perpetrator's determination to hurt the victim. Even if the victim blocks the perpetrator, there is no telling whether the second will return with a different profile to resume hurtful posts. For such reasons it is recommended that users should be trained on how to use Facebook, before they are allowed to activate the account.

Next CB victimisation means were examined; it should be mentioned here that CB means were split into victimisation and perpetration as victims have different perceptions on the means from perpetrators. In SB, it was noticeable that there was some kind of consistency between victims and perpetrators. In this chapter it was found that the four most prevalent CB victimisation means were rumours, followed by threats, flaming and exposure; all these categories had been also reported by Nuccitelli (2012). Apart from the most prevalent categories, other categories were also reported, such as exclusion, provocation and insults, phishing and impersonation harassment, denigration and encouragement to commit suicide, and many others. Therefore, it is apparent that CB means are more complicated than SB means, indicating that educators and parents need to pay more attention to CB.

CB victims' perception on the reasons behind their victimisation was also examined. The first most prevalent reason was arguments in other settings with 45.9%, indicating that CB could be an escalation of SB (e.g. revenge) (Corby, et al., 2016;2014;). The next most prevalent reason was the victim's looks, followed by achievement and opinions that the victim stated online; perhaps implying that perpetrators target those that are somehow different. Besides, Felmlee and Faris (2016) showed that CB perpetrators often target individuals that deviate from the norm. With the same rationale, other less prevalent reasons were sexual preferences, religion, ethnicity, financial status, no reasons, posts, family, illnesses, jealousy, and of course pre-existing relationships that ended in a bad way.

Victims were also asked whether their CB perpetrator had harassed them in other settings. The results showed that the same perpetrator in other settings had indeed harassed 14.2% of the victims, indicating a pre-existing relationship, argument or escalation of such incidents that transferred to cyberspace. Moreover, to reveal victims' perceptions on whether the harassment would take place without the social media, participants were asked directly of their opinion. The findings showed that the majority 20% believed that the victimisation would not have occurred without the social media interaction. Thus, it is highly important that youngsters are taught how to use cyberspace safely and should maintain communication with adults to ask for advice if/when CB victimisation occurs. On the other hand, 15% believed that the harassment still would have occurred in other settings, which once more suggests pre-existing grievances and encountering of the perpetrator perhaps at school or the community. The findings imply that CB may be an escalation of SB, or SB may be an escalation of CB as proposed by others (Chan & La Greca, 2016; Wright, 2016).

While results also reveal that the social media play a major role at least in CB victimisation.

Last but not least, victims were asked how did the victimisation stop; the four most prevalent given reasons were: standing up to the CB bully with 37%, followed by 29% of victimisation ending without a given reason, and victimisation stopping when victims left school with 22%, as Frisén, et al., (2012) had indicated previously. Next, was parent intervention (14.5%); indicating the importance of parent mediation as supported by others (Navarro, et al., 2013;2012;). Based on the first four prevalent means for ending victimisation, it is advisable that victims should protect and ethically defend themselves; and if that does not work, they should ignore the perpetrator, while they must also report the incidents to their parents. Victims should also talk to their friends and teachers, as other prevalent means were friend intervention and teacher intervention. Moreover, it should be mentioned that only 1.8% managed to stop the victimisation by reporting the perpetrators' account, proving that platforms such as Facebook do the minimum to prevent and protect users from CB. Consequently, realising that the protection systems, set up by the platforms' developers immensely fail regarding CB prevention/intervention. In addition, the majority of participants had not received any kind of help or support during their victimisation. Although, it is not known what percentage asked for that support. Nonetheless, victims should reach out when in need, but parents and schools should present availability for such help as previously suggested (Perren, et al., 2012). The latter is of major importance since from the victims that received help 17.3% definitely and sort of succeeded in escaping victimisation, while only 3.7% did not escape it.

Finally, the linear regression confirmed only the second assumption, as it showed that the category “victimisation would anyhow take place regardless of the social media effect”, predicted CB victimisation intensity. Perhaps implying that the more pessimistic victims are the more intense the CB victimisation. As for the first expectation, it was rejected; implying that victimisation in other settings by the same perpetrator does not predict CB victimisation. It may be that the particular sample was victimised by perpetrators that they did not encounter in other settings; besides less than 15% informed of such incidents. Additionally, it is assumed that time spent online, online violence exposure, parental monitoring of time spent online, parents set rules for Internet site restriction, whether rules are followed, and onset of social media use, play a role in CB victimisation. And although the overall results were significant, only online violence exposure increased victimisation intensity. This may be because victims are angered or become more aggressive by exposing themselves to violent content; therefore when online they behave in provocative ways and thus attracting perpetration. Besides, it was explained previously that SB victimisation is significantly associated with hostility; therefore, it may well be that the same applies for CB victimisation.

### **10.12. Conclusion**

Concluding, in this chapter, it was shown that CB victimisation is not as prevalent as SB victimisation. However, it was found that it is exhibited and experienced in more ways than SB, consequently intensifying such experiences even if they are not frequent. Moreover, it was shown that CB victimisation could be stopped; therefore, victims are advised to be optimistic, resilient and persistent; but also not to blame technology. Indeed, Facebook must take precautions and help the users protect themselves from victimisation, but the pessimism of certain victims and

feelings of helplessness will only intensify the victimisation. Finally, young people and parents, as well as schools should inform of the risks accompanying exposure to online violence. It seems that such exposure intensifies CB victimisation, although the perpetrators they engage with in platforms with violent content, may play an important role. CB perpetrators are therefore examined next, allowing for a comparison and examining for any consistency between the two groups.

## ***Chapter 11 - CB Perpetration***

### **11.1. Cyber Perpetrator**

After examining CB victimisation, the present chapter looks into CB perpetration and the related aspects. A frequent observation in literature of this chapter was that CB perpetrators tend to believe that their actions are not harmful and have no impact on the victim; while frequently both CB perpetrators and CB victims do not realise that they are engaging in CB (Karabacak, Öztunç, Eksioğlu, Erdoğan, Yar, Ekenler & Selim, 2015). For example, Campbell, Slee, Spears, Butler and Kift (2013) found that the scores related to CB perpetrators' perceptions on the 'harshness' and 'impact' of their behaviour were lower than the scores of the victims. Particularly, 57% of the perpetrators did not think their bullying behaviour was harsh and that 74% did not think that it had an impact on their victims' life. Others (Schenk, Fremouw & Keelan, 2013) linked CB perpetrators to online and offline aggression and suggested that CB perpetration is a mean to express psychological distress, and other psychological difficulties such depression, anxiety, paranoia, psychoticism, jealousy, revengefulness and hostility. Moreover, Bayraktar, Machackova, Dedkova, Cerna and Ševčíková (2015;2014;) concluded that CB perpetration, which is, linked to offline and online aggression, results from the perpetrators' normative beliefs that CB perpetration or aggression is just normal behaviour. Finally, Slonje and Smith (2008) reported that 36.2% of victims in their study reported one male CB perpetrator, and 36.2% did not know the perpetrator's identity; 12.1% reported one female perpetrator, and 5.2% reported perpetrators of both genders. Moreover, the authors found that 27.6% of the perpetrators were attending the same class as the victim, 12.1% attended different class but had the same age, 12.1% of perpetrators were from different

grades, 10.3% were attending different schools; and 2.2% of perpetrators were older than the victim. Taking into account the literature, it can be seen that CB perpetration is measured both by relying on perpetrators' perceptions of CB and honesty for admitting such behaviour. Therefore, it is of importance to keep measuring the behaviour in an attempt to identify how the rates can be reliable.

### **11.2. Frequency of CB Perpetration**

CB is a worldwide concern (Messias, Kindrick & Castro, 2014; Hemphill, Tollit, Kotevski & Heerde, 2015) and it has been agreed that since 2002 CB is on the rise (Rivers & Noret, 2010; Rigby & Smith, 2011; NoBullying, 2015; NCPCC, 2015). Prevalence rates vary from 5.3% to 35% or higher (Still, Modecki, et al., 2014, Balakrishnan, 2015), while it appears that the reported rates for CB are usually lower than SB. Another study (Mishna, Cook, Gadalla, Daciuk & Solomon, 2010) reported that out of the 2,186 students that participated, 49.5% of students indicated they had been cyber-victimised and 33.7% admitted cyber-perpetration, suggesting that perpetration rates are lower than victimisation rates. Regardless, literature appears to agree that females are more frequently involved in CB than males, with some countries reporting lower rates of CB perpetration from others (Sygkollitou, Psalti, and Kapatzia in 2010; Antoniadou & Kokkinos, 2015; 2013). For example, in Taiwan, Chang, Lee, Chiu, Hsi, Huang and Pan (2013), found that in 2010 out of the 2992 participants, 5.8% cyber-victimised someone else and 11.2% had both cyber-victimised another student and experienced cyber-victimisation. While in Australia the frequency was higher, indicating 14% out of 3000 participants being CB perpetrators (Campbell, Spears, Slee, Kift & Butler, 2011), whereas, in Canada, CB perpetration admittance was up to 44% (NoBullying, 2015).

But then again, due to the inconsistency of the terminology (Beckman, Hagquist & Hellstrom, 2013) such rates may not be indicative; for example, many researchers (Raskauskas, 2009;2010) include text bullying as a type of CB. Others (MacDonald & Roberts-Pittman, 2010) reported that mediators such as age or gender might influence frequency rates and prevalence rates. It was also found that older individuals engage in CB perpetration frequently, perhaps indicating that the frequency of CB perpetration does not decrease with age and is not out grown after school life (Çankaya & Tan, 2011). Zalaquett and Chatters (2014) further supported that CB perpetration continues after school to college and university, with approximately rates up to 5% CB perpetrating during college years. The authors also found that frequency is indeed affected by gender, as females CB perpetrate five times more during college in comparison to males. Last, Holfeld and Leadbeater (2015) found that regardless of the general CB perpetration rates and frequency, the most frequent behaviour for CB perpetrators in terms of daily basis, is to annoy others by posting various comments intended to make others laugh at the expense of the victim; as well as initiate rumours and share pictures that would not compliment victims. Consequently, it is of importance to examine CB with older individuals and not just focus on school-aged participants; and here is where the present study attempts to cover limitations in past literature.

### **11.3. Cyber – Perpetrators’ Characteristics**

Mishna, Saini and Solomon (2009), found that CB perpetrators tend to have a lower sense of inhibition, and experience less fear of being judged for their actions, therefore, often harass their victims in the presence of others (Lapidot-Lefler & Barak 2012; Morahan-Martin & Schumacher, 2003). In addition, research in Canada, revealed that CB perpetrators do not have a clear sense of boundaries and might not

appreciate the difference between right and wrong behaviour. Quite often it is found that they suffer from delinquency, are more prone to substance abuse, have an increased school dropout number and increased academic difficulties, feel extreme aggression, are more prone to have criminal records by the age of 24, have difficulties when dating or in relationships and are often victims of bullying themselves (NoBullying, 2015).

Others (Bayraktar, et a., 2015;2014;) disagreed with previous research (Zalaquett & Chatters, 2014) and reported that males are more often involved in CB as perpetrators, but both genders are equally involved in CB role switch. The latter project also found that CB perpetrators exhibit low self-control, and offline aggression, while engage in antisocial behaviour. Moreover, as mentioned earlier some projects (Schenk, et al., 2013) found that CB perpetrators may suffer from interpersonal sensitivity, depression, hostility, phobic anxiety, paranoia, psychoticism, and a general distress; while may show indications for suicidal behaviours in comparison to individuals not involved in CB. However, the characteristics do not stop there; the same authors showed that CB perpetrators have increased likelihood of engagement in illegal behaviour and drugs related crimes. It can be seen here that CB is relevant to other more broad areas of research, such as criminology. Perhaps, if CB and SB accordingly, are addressed and prevented from a young age, the possibility of engaging in later crime can also be prevented. Furthermore, Seigfried-Spellar and Treadway (2014) found that individuals that spent many hours online and engage in other illegal online activities such as hacking have also increased likelihood of engaging in CB perpetration, which confirms the previous suspicion. Finally, Görzig and Ólafsson (2013) found that CB perpetrators enjoy spending long hours online without real world social interaction, and commit most of their CB perpetration via a

smartphone rather than a computer; suggesting CB perpetrators prefer immediate access to the social media whilst having the availability to engage online constantly.

The latter also implies Internet and social media addiction, which is being an increasing phenomenon the past decade.

#### **11.4. Most Prevalent Social media Platforms and CB - Perpetration**

In CB victimisation, it was shown that Facebook is the most prevalent platform where victimisation is experienced; likewise, in CB perpetration the literature was not much different. However, it was evident that most of the literature was focused on perceptions of victims and victims' experiences rather than perceptions of perpetrators and which platforms perpetrators mostly prefer to CB perpetrate. Nonetheless, Kwan and Skoric (2013) suggested that Facebook users are at a greater risk of engaging in CB perpetration. Perhaps the reason that Facebook comes first in CB is the fact that school students and students in general connect and communicate with Facebook, and if they engage in disagreements in real life, they might find the opportunity to continue online. Moreover, one of the most frequent aspects that was discussed in literature was the fact that Internet service providers, developers and managers of the platforms, including Facebook, and the privacy settings of such platforms are merely sufficient or efficient to tackle CB perpetration (Carter, 2013). In CB victimisation it was seen that Facebook is indeed the most prevalent platform for such negative incidents, but is there consistency with perpetrators in terms of preference? This aspect is further examined in this chapter, attempting to provide clarity on the matter.

#### **11.5. CB Perpetration Means**

In CB victimisation, it was shown that literature has referred to numerous means that victims suffer from (see Nuccitelli, 2012 for examples). However, CB

perpetration means do not end with Nuccitelli's 28 types. For example, Slonje and Smith (2008) had previously revealed other means, such as phone call perpetration. To further explain, some studies include phone and text bullying with CB and other studies as a stand-alone type of bullying. Nonetheless, the latter study found that the most prevalent mean of CB perpetration was harassment by email, but then again the authors warned that frequencies varied by location and the difference in perspectives between the victims and the perpetrators. Others (Mishna, et al., 2010) found that instant messages are prevalent, so were threats, rumours and game harassment. Whereas, Zweig, Dank, Yahner and Lachman (2013) revealed cyber dating abuse is a frequent type of CB perpetration, with females perpetrating more often. Finally, Kowalski, Morgan and Limber, (2012) implied that the overlapping between SB and CB makes it difficult to indicate which type of perpetration may be most prevalent. Standing on the latter, it can even be assumed that CB is a type of SB; meaning that bullying at school can also be exhibited by CB perpetration. If that is the case, then the question whether CB is part of SB or a stand-alone type of bullying, is raised and is further addressed in this thesis.

### **11.6. Reasons of CB Perpetration**

Schenk, et al. (2013) found that CB perpetrators act in such way because they seek revenge or dislike the victim, because they are angry or hate someone, and even because of jealousy. Others (Mishna, et al., 2010) identified the victim's school performance, sexuality, appearance, race, gender, disability and family status as reasons. Some perpetrators act in such ways because they simply can; in other words, lack of discipline, rules and effective communication from teachers at school (Pabian & Vandebosch, 2016). On the other hand, Gámez-Guadix and Gini (2016) supported that low levels of impulsivity predict CB perpetration; thus implying that perpetrators

may not be able to control themselves (Marcum, Higgins & Ricketts, 2014).

Regardless of what triggered them in the first place, protection due to anonymity is always a prevalent reason (Ménard & Pincus, 2012;2011;). Finally, Compton, Campbell and Mergler (2014) mentioned that commonly reported reasons for CB perpetration is boredom and the need of perpetrators to show power, dominance and status over others. As this aspect was examined for the CB victims, it is appropriate and consistent to examine it for CB perpetrators, and explore whether the given reasons match between the two groups, or are there any inconsistencies.

### **11.7. CB Perpetration and Perpetration in Other Settings**

It has already been mentioned multiple times that literature suggests an overlapping or escalation occurring between SB and CB; for example, Tanrikulu and Campbell (2015) showed that out of 500 participants in their study 25.2% reported engaging in both SB and CB perpetration. Such findings also suggest that young individuals may hold grudges and may not let disagreements at school end with the bell; instead, they find the opportunity to continue the harassment online. This may be as an act of revenge, because the CB perpetrator was victimised at school; or it may be that the perpetrator finds it amusing to escalate the victimisation online and maintain the dominant role, as in school (Navarro, Yubero & Larrañaga, 2015). Of course, CB victims may also confront perpetrators at school if the identity is known; which could lead to physical attacks, verbal attacks and even severe injuries and homicides. And as mentioned previously, the present study attempts to clarify this disagreement and indicate a direction on whether CB has become a predominant type of SB.

## **11.8. What Stops CB Perpetration**

Some studies (Navarro, et al., 2013;2012;) suggest that parent mediation helps to stop CB perpetration; others (Schenk, et al. (2013) reported that CB perpetrators frequently discontinue the negative behaviour because they are no longer mad or upset, the argument is over, or simply because they get bored with CB. Other reasons that perpetrators themselves reported were realising that they did not want to hurt their victim anymore or recognised that the behaviour was immature. However, most of the literature is focused on what victims can do in order to avoid victimisation or deal with it if it occurs. On this subject, Parris, Varjas, Meyers and Cutts (2012;2011;) suggested that CB perpetration could stop if victims ignore the perpetrator; that reaction will eventually lead most of perpetrators to lose interest in the victim. The latter authors also suggested that victims talking to the perpetrator and explaining what the consequences are along with an attempt to resolve the matter might prove helpful.

On the other hand, Sabella, Patchin and Hinduja (2013) reported that there are some myths associated to CB; such as “everyone knows what CB is”, “like SB, CB is a rite of passage”, “cyber-bullies are outcasts or just mean kids”, and “to stop CB just turn off your computer or cell phone”. Such myths indicate that there is a definite lack of awareness regarding CB and most likely misinformation. Perhaps if there was a holistic attempt from schools and parents to raise awareness, then CB might indeed be tackled (Smith, 2015), and this has been suggested multiple times (Perren, Corcoran, Cowie, Dehue, Garcia, McGuckin, . . . Völlink, 2012). While, the present study is further examining this aspect in an attempt to clarify previous inconsistencies or confirm past literature.

## **11.9. CB Perpetration – Related Hypotheses**

1. Perpetrating in real life settings can be a factor for CB perpetration.
2. Blaming the technology for CB perpetration can result in more intense CB perpetration.
3. It is assumed that online violence exposure plays a role in CB perpetration, while due to lack of direction from previous literature, no expectations were set for time spent online, parental monitoring of time spent online, parents set rules for Internet site restriction, whether rules are followed, and onset of social media use.

## **11.10. Results**

***Descriptive Statistics:*** Out of the 408 participants 379 (92.89%) reported that, they had never used the social media to hurt someone, 17 (4.17%) said Yes, and 12 (2.94%) reported Sort of, in other words they did not consider their actions CB. In terms of frequency, the majority (19, 4.66%) of participants that answered Yes and Sort of to the previous question reported once, 16 (3.92%) more than once, and four (0.98%) once a month; it should mentioned here that the category never was also included (369, 90.44%). Participants were asked whom did they CB victimise and the responses are presented in Table 11.10.1.

Table 11.10.1. *Whom did the CB perpetrators victimise.*

Whom did the CB perpetrators victimise	Prevalence
Girls in their grade	16 (51.6%)
Boys in my grade	5 (16.1%)
Older boys	4 (12.9%)
Someone I did not know	4 (12.9%)
Older girls	3 (9.7%)
Younger boys	2 (6.5%)
An adult	2 (6.5%)
Someone strong, someone popular, an ex boyfriend, an ex friend.	< 2%

It should be noted here that participants were selecting all options that applied to them, thus frequencies will not add up to the number 29 that admitted CB

perpetration of some form. Next, participants were asked which platform did they use to hurt their victims and the responses are presented in Table 11.10.2.

Table 11.10.2. *In which platform did you CB victimised.*

In which platform did you CB victimised	Prevalence
Facebook	19 (63.3%)
Twitter	4 (13.3%)
Snap Chat	2 (6.7%)
Ask.fm	2 (6.7%)
Email, Instagram, Google +, LinkedIn, YouTube, MSN, Whatsapp, dating platform, and one participant further reported: <i>"I destroyed them and their lives, my name is forename last name, find me"</i>	< 2%

To the question “what ways did you use to hurt them” participants reported the following reasons presented in Table 11.10.3.

Table 11.10.3. *Ways that the CB perpetrators used to victimised others.*

Ways that the CB perpetrators used to victimised others	Prevalence
I spread rumours	9 (31%)
I excluded them from a group	8 (27.6%)
I kept swearing to them online for others to see as well	7 (24.1%)
I shared their photos and personal information	4 (13.8%)
I threatened them	3 (10.3%)
I used their personal information to buy things online, pulled jokes and pranks on them, I told people what she had done, I attacked their points of views, I told everyone in all honesty what she had done to me as she was bullying me.	< 2%

In terms of perpetration intensity, the observations had an average of 1.86 ( $SD = 2.42$ , Min = 0, Max = 13). %) (see Table 11.10.4 in appendix B).

Next, participants were asked the motivation behind their actions, and they responses are presented in Table 11.10.5.

Table 11.10.5. Reasons of CB perpetration.

Reasons of CB perpetration	Prevalence
Arguments in other settings	35 (44.9%)
It was just a joke, I did not want to hurt them	12 (15.6%)
The opinions they posted online	11 (14.1%)
The photos they post online	9 (11.5%)
They had done it to me	8 (10.3%)
Their looks	8 (10.3%)
Ex friends	3 (3.9%)
Their family	2 (2.6%)
Made me feel better	2 (2.6%)
Abusive ex boyfriend, personality, financial status, sexual preferences, and their achievements	< 2%

In terms of hurting the victims in other settings 139 (34.07%) said No but these included individuals that had not CB perpetrated in general, 12 (2.94%) reported Sort of and nine (2.21%) reported Yes. Participants were also asked if they would have attacked their victim if the social media would not exist and 112 (27.45%) responded No, 19 (4.66%) I don't know, and 18 (4.41%) Yes. As in victimisation, perpetrators were also asked to report what made them stop the harassment and the responses are presented in Table 11.10.6.

Table 11.10.6. *Why did you stop CB victimising others.*

Why did you stop CB victimising others	Prevalence
I felt guilty	29 (34.5%)
I just left them alone for no reason	27 (32.1%)
At some point I start feeling sorry for them	21 (25%)
I stopped using that platform	9 (10.7%)
My parents intervened	4 (4.8%)
My teachers intervened	3 (3.6%)
I stopped when I/they left school	3 (3.6%)
I was punished by the school	3 (3.6%)
The victim changed the reason I was bullying him/her for	2 (2.4%)
They stood up to me	2 (2.4%)
Authorities, I never meant to hurt them and I just wanted others to laugh, I realised it was pathetic, I grew up, we became friends, the argument ended, they stopped provoking me, they were not worth my time, I wanted to be a better person, and I reduced social media use.	< 2%

Finally, perpetrators were asked if anyone had tried to stop them when they were victimising others and 80 (19.61%) said No, 10 (2.45%) reported Sort of and only nine (2.21%) said Yes. Out of the individuals that tried and sort of tried to intervene 16 (66.7%) talked to the perpetrator, four (16.7%) told someone else (parents, teachers, police) and three (12.5%) threatened the perpetrator that they will tell an authority figure. In terms of intervention success, 13 (3.19%) said that the intervention failed, 11 (2.70%) the intervention was successful and nine reported that the intervention was Sort of successful.

***Inferential Statistics:*** Regarding inferential statistics, the same analysis was conducted for CB perpetration as was for victimisation, that being a linear regression

model to explore perpetration on the same victim in other settings and the perceptions of perpetrators regarding social media and its role in their perpetration; however, the model was non-significant, thus these variables were not examined further. Moreover, CB perpetration intensity was regressed as was victimisation intensity with the following independent variables: time spent online, online violence exposure, parental regulation of time spent online, whether parents set rules in terms of particular site restriction, whether CB victims follow such rules, and the onset age of social media use. However, once more, none of the independent variables explained the variation in CB perpetration intensity; therefore, none of the variables were explored further.

### **11.11. Discussion**

The CB perpetration prevalence rates (7.11%) found in this chapter, showed that CB perpetration admittance was much lower than the reported CB victimisation (37.26%), and lower than rates reported in other studies (Slonje & Smith, 2008). However, the lower perpetration than victimisation is found quite commonly in literature (Mishna, et al., 2010). Still the rates appear closer to Modecki, et al., (2014) who reported rates between 5.3% and 31.5%. This may well be because perpetrators were ashamed to admit the behaviour, even though the survey was anonymous. It must also be taken into account that a great number of participants resulted from the university sample pool; the students had to use their university identification number in order to receive the credits from completing the survey. Thus, it might be possible that these perpetrators were afraid of being identified and criticised. Moreover, from the individuals that admitted to sort of perpetrating and definitely perpetrating, the majority CB victimised someone just once. The findings indicate that participants considered a sole incident as CB, something that goes against the definition's criterion

of repetition, and further signifying the importance of re-evaluating the definition's criteria.

In terms of targets and motivation, the four most prevalent targets were girls in the same class, followed by boys in the same class but with a much lower rate. The findings further support that CB may be a result of existing disagreements that take place at school and escalate either to CB or overlap and the circle begins between SB and CB. Participants were also asked where do they exhibit such behaviour mostly and Facebook prevailed once more with 63.3%, indicating a consistency between victimisation and perpetration in terms of where CB occurs. What was quite distressing in this section was the answer of one participant who actually gave his name willingly and said: "*I destroyed them and their lives, my name is forename last name, find me*". This shows that the perpetrator almost felt proud for victimising other individuals and felt the need to name himself as if asking for recognition of his actions. Regardless, the main aspect taken from this section is that once more Facebook developers must act and find better ways to protect their users. Presently, there are tools in place; however, these settings are merely enough for protection. CB perpetrators frequently use fake accounts and names when perpetrating and even if the victims block them, perpetrators can still create a new account and continue the harassment. Therefore, perhaps the only way to decrease Facebook CB would be education and training on safe Facebook use. In general, the findings agree with Kwan and Skoric (2013) that showed Facebook as a prevalent platform for CB and with Carter (2013) who warned that the privacy settings of such platforms are merely sufficient or efficient for tackling CB perpetration.

Next, the four most prevalent means of CB perpetration were spreading rumours, followed by exclusion, flaming, sharing the victim's personal

information/photos and threats. As for motivation, the majority victimised others because they had existing arguments in other settings, thus further suggesting the overlapping or escalation between SB and CB. The next most prevalent was the perpetrators' perception that their actions were only a joke; thus showing that some perpetrators do not understand the severity of the consequences of their actions on CB victims (Karabacak, et al., 2015). Next was the victim's opinions and photos posted online, suggesting that dominance is an aspect that leads perpetrators to try and inflict their way of thinking on others whilst rejecting others' opinion (Compton, et al., 2014). In addition, a small number of participants reported that they victimised those that had victimised them in the past, suggesting revenge and once more the cycle between victimisation and perpetration. Finally, a smaller percentage also reported that they targeted the particular victims indeed for their appearance; as Mishna, et al. (2010) suggested. It can be seen that once more the reasons behind such behaviour vary; however, disagreements in other settings appear to be the most important reason, and thus requires further attention.

The perpetrators were asked if they have hurt their victims in other real life settings and the majority, reported No. However, it seems that non-perpetrators answered these questions as well, perhaps because they did not pay attention to the guidance notes; consequently, it was not possible to distinguish which participants had perpetrated and said no to this question from the ones that did not perpetrate at all. Nonetheless, 21 out of 29 perpetrators sort of and definitely hurt the victim in other settings; further indicating the overlapping effect of CB to SB and the opposite as literature has shown (Navarro, Yubero & Larrañaga, 2015). Moreover, 18 of the perpetrators reported that they would most likely attack their victim in other settings even if the social media would not exist; indicating how determined they might be in

their attack or the likelihood of frequent interaction with their victims in real life environment.

As for the reasons that they stopped the perpetration, the most prevalent was guilt. Consequently, it is evident that perpetrators can be changed if educated and shown the negative consequences of their actions. Perpetrators' parent intervention was also among the most prevalent reasons, suggesting that parents may not be the first way to tackle CB, but if necessary when repetition exists, then they should definitely be involved (Navarro, et al., 2013;2012;). The findings agree in some degree with Schenk, et al. (2013) who advised that perpetration often stops when the argument is over, or when the perpetrator is bored with the victim or behaviour. The findings could be of use to anti-bullying strategies, where among the first steps would be to help perpetrators acknowledge shame, use empathy training and teach victims to be patient and not impulsive or engage with the perpetrator as in most cases it will only lead to escalated events.

Finally, the majority of perpetrators reported that no one tried to stop them when they harassed their victim. Only a handful of perpetrators reported the opposite, and from that group, the majority stopped the harassment, after discussions or intervention from parents or teachers and even the authorities. The findings suggest that bystanders should try to reason with the perpetrator and if that does not work, parents, teachers, and authorities should be informed and intervene.

Concluding, the regression models that were run to test whether perpetration on the same victim in other settings and the perceptions of perpetrators regarding social media and its role had an effect or predicted CB perpetration intensity, were non-significant. The same applied for time spent online, online violence exposure, parental regulation of time spent online, whether parents set rules in terms of

particular site restriction, whether CB victims follow such rules, and the onset age of social media use, and CB perpetration intensity. Therefore, rejecting all assumptions. Perhaps the results were affected by the limited sample size; thus, advising future research for utilisation of a larger sample.

### **11.12. Conclusion**

The present chapter focused on the CB perpetrator and examined various related aspects, in consistency with CB victimisation. Unfortunately, the inferential statistics failed to provide any insight; however, the descriptive statistics indicated that CB perpetration rates are lower than victimisation rates, lower than SB perpetration rates and there is a suggested overlap between online and offline bullying. While it must also be taken into account that, the small sample size may have affected the results. Therefore, we would advise schools, parents and researchers developing anti-bullying strategies to take that into account and attempt to educate, train, and address both SB and CB when discussing such matters with students. Mainly because it was shown that one of the most prevalent reasons that CB perpetrators act in such ways, is disagreement and grievances resulting from real life settings. It is evident that there is no clear boundary of where SB stops, CB begins, and when the role switch from CB victim to perpetrator and the opposite arises.

## ***Chapter 12 - CB Role Switch***

### **12.1. Role Switching in CB**

As mentioned in the conclusion of chapter 11, quite often there is a role switch from CB victim to perpetrator and the opposite. Moreover, going back to SB, it was found that there is an association between SB victimisation and SB perpetration, while it appears that there is an overlap between CB and SB. The present chapter looks into switching roles from CB victim to CB perpetrator and the opposite. The individuals that reciprocate to CB victimisation with CB perpetration or the opposite are commonly called CB victim-bullies or bully-victims. These individuals are hot-tempered, hyperactive, restless, emotionally immature and clumsy (Rigby, 2007). They are provocative and when under attack, they tend to respond with violence, which in turn provokes more attacks, as it commonly occurs with SB (Besag, 1989). They also exhibit concentration difficulties (Olweus, 2003), display higher levels of offline aggression and have lower self-control, all characteristics in comparison to pure victims and pure bullies (Bayraktar, et al., 2015;2014;).

Moreover, it was also found that CB victim-bullies often result in physical harassment due to their high impulsivity if the identity of the initiator is known (Craig & Pepler, 1995), thus the SB – CB overlap occurs. Compared to SB where boys engage more often, it appears that girls are generally more involved in CB as a victim-bully (Beckman, et al., 2013). Additionally, it was found that SB perpetration is associated to CB victimisation, which resulted from SB victims revenging their tormentors through CB perpetration; consequently causing an online and offline role switch (Mishna, et al., 2012; Yang, et al., 2013). Understandably, as studies (Karabacak, et al., 2015) found that students who face CB victimisation are more motivated to CB perpetrate.

In terms of rates Mishna, Khoury-Kassabri, Gadalla and Daciuk (2012) in their study found that approximately 26% engaged in CB both as victim and as a bully, whilst presented as a common behaviour in comparison to SB role switch. Furthermore, Wachs, Junger and Sittichai (2015) revealed that CB bully-victims are the ones that most frequently engage in sexting as a form of harassment, while also engage in more risky offline activities. Concluding, it may be that, CB victims do not blame themselves for their victimisation in such a level as SB victims (Smith, Talamelli, Cowie, Naylor & Chauhan, 2004). It is possible that their first impulse is to retaliate and reciprocate; instead of withdrawing, as commonly occurs in SB. Standing on the latter, one could assume that CB victims are more resilient than SB victims, and thus retaliate more. Alternatively, it may be that they feel more capable in fighting back as they do not have to physically face the bully. In other words, CB victims may feel that they are fighting on equal grounds with the CB bully. Regardless, the assumption is insignificant without taking into account the severity of the event, the CB means and the possibility of encountering each other in a real life environment. Clarifying the role switch between CB victim and perpetrator, can assist in understanding the nature of the type as a whole, therefore it is examined in depth in this thesis.

## **12.2. CB Role Switch - Related Hypotheses**

1. CB victimisation and perpetration are related and each can function as a significant predictor.

## **12.3. Results**

***Descriptive Statistics:*** The most frequently observed category of CB role switch perpetrator to victim was No ( $n = 372, 91\%$ ); however, 35 (8.58%) participants answered that they sort of and definitely became CB victimised after CB perpetrating.

Taking into account that in the sample ( $N = 408$ ) there were 29 (7.11%) CB perpetrators that admitted CB perpetration in the previous chapter, three assumptions result: 1) six perpetrators did not initially admit CB perpetration; 2) six perpetrators were confused by the terminology and did not consider themselves CB perpetrators up to this point of the questionnaire; and 3) all of the perpetrators reported in chapter 11 and six more admitted that they had CB perpetrated and due to that behaviour someone else CB victimised them. Thus, indicating a complete role switch from perpetrator to victim for all perpetrators. As for the frequency of the role switch perpetrator-to-victim, the most observed categories were one time and two times, each with an observed frequency of 11 (3%). Since the admitting perpetrators were now 35, then approximately 31% of the perpetrators' sample role switched at least once or twice.

As for CB role switch from victim to perpetrator, the most observed category was again No ( $n = 344$ , 84%). Regardless, in the CB victimisation chapter 152 (37.26%) participants out of the 408 reported sort of and definitely having experienced CB victimisation. Thus, 64 (15.68%) out of the whole sample role switched from CB victim to CB perpetrator. In other words, 42% of the pure CB victims' role switched from CB victim to CB perpetrator. Furthermore, the most observed category of the role switch frequency was two times ( $n = 22$ , 5%) (see Table 12.3.1 in appendix B for frequencies and percentages).

**Inferential Statistics:** To examine the possibility for significant relationships between CB victimisation occurrence and CB perpetration occurrence a Chi-Square Test of Independence was conducted, assumptions were taken into account (McHugh, 2013). The results of the Chi-Square test were significant,  $\chi^2(4) = 12.55, p = .014$ ; Fisher's two tailed exact test ( $11.66$ ) also suggested significant results  $p = .013$ .

Suggesting that, CB perpetration occurrence and CB victimisation occurrence are related to one another (see Table 12.3.2 in appendix B).

Next, a multinomial logistic regression analysis was conducted to assess whether CB victimisation occurrence had a significant effect on the odds of observing each response category of CB perpetration relative to No. The results of the multinomial logistic regression model were significant ( $\chi^2(4) = 12.58, p = .014$ ), suggesting that CB victimisation occurrence had a significant effect on the odds of observing at least one response category of CB perpetration relative to No, the McFadden R-squared value was 0.05. Since the overall model was significant, each predictor was examined further; results showed that the regression coefficient for CB victimisation Yes in response category Yes of CB perpetration was significant,  $B = 1.19, \chi^2 = 5.48, p = .019$ , suggesting that an increase in CB victimisation would increase the odds of observing CB perpetration relative to No by 227.10% (see Table 12.3.3).

Table 12.3.3. *Multinomial Logistic Regression table with CB perpetration occurrence predicted by CB victimisation occurrence.*

Variable	Response	B	SE	$\chi^2$	p	OR
(Intercept)	Sort of	-4.11	0.50	66.64	< .001	
CB victimisation Sort of	Sort of	1.51	0.89	2.89	.089	4.54
CB victimisation Yes	Sort of	1.23	0.66	3.54	.060	3.43
(Intercept)	Yes	-3.56	0.38	86.03	< .001	
CB victimisation Sort of	Yes	-15.33	2424.07	0.00	.995	0.00
CB victimisation Yes	Yes	1.19	0.51	5.48	.019	3.27

Note.  $\chi^2(4) = 12.58, p = .014$ , McFadden  $R^2 = 0.05$ .

In addition, it should be mentioned here that the same effect results from a multinomial logistic regression model if the variables are reversed ( $\chi^2(4) = 12.58, p = .014, B = 1.19, \chi^2 = 5.48, p = .019$ ), suggesting that an increase in CB perpetration would also increase the odds of observing CB victimisation relative to No by 227.10%.

## **12.4. Discussion**

Chapter 12 dealt with the role switch from CB victim to perpetrator and the opposite. Participants were asked whether they had perpetrated and their victim reciprocated in the same way, and whether when and if victimised they reciprocated by perpetrating. Unfortunately, it was not anticipated that all participants would respond to this section of the questionnaire, therefore descriptive statistics resulted with the majority of participants responding that the role switch from perpetrator to victim (91%) and victim to perpetrator (84%) had not occurred to them. Nonetheless, as the rates from pure victimisation and pure perpetration were already known, the authors based their inferences by assuming that there were 29 sort of and unquestionably perpetrators and 152 sort of and unquestionably victims amongst the 408 participants. Surprisingly, in terms of the role switch from perpetrator to victim there were 35 participants that sort of and unquestionably role switched, indicating that six more participants admitted to CB perpetration in this section while denied it in the pure perpetration section of the questionnaire. This may have occurred for a number of reasons; it may be that admitting to pure perpetration is relatively hard for participants, particularly if they felt guilty and ashamed after their actions. However, admitting to victimisation first is easier as they would not feel criticised for retaliating. Another possible reason could have been confusion due to terminology; these bully-victims might have felt that they do not belong purely to the perpetrator's category and thus identified with the bully-victim category only. Nonetheless, even if the six additional perpetrators are excluded, the assumption is that all of the 29 CB perpetrators were also victimised online due to their actions. This finding suggests that 100% of the perpetrators were also involved in victimisation. This behaviour may as well result from the characteristics that were described in literature, such as high

impulsivity and emotional immaturity (Rigby, 2007). Moreover, this absolute role switch in this sample appears to occur commonly between one and two times in their overall involvement in CB, which is relatively consistent with pure CB perpetration frequency that was once and more than once. Therefore, results would not entirely agree with previous literature (Bayraktar, et al., 2015;2014;) that suggested those that switch roles are more aggressive in comparison to pure perpetrators.

On the other hand, regarding the role switch from victim to perpetrator, results showed that 64 out of 152 participants role switched from CB victim to CB perpetrator; keeping in mind that inferences were based on the reported rates of pure victims and pure bullies. In other words, approximately half (42%) of the pure CB victim sample role switched to CB perpetrator; which is a much lower rate from the previous examined role switch. Nonetheless, in terms of frequency, once more there was a consistency in the role switch victim-to-perpetrator reported frequency (two times) with the reported frequency from the pure victim (more than once). Moreover, if we were to disregard from which role the individuals switched to the latter role, we would conclude that from the overall sample that admitted involvement in CB ( $N = 187$ ) 99 individuals could be identified as bully-victims or victim-bullies; resulting in approximately 53% of the general CB involved sample and approximately 24% of the overall sample. The latter findings suggest that in this project the role switch rates agree with Mishna, et al. (2012) who supported that the role switch occurs in approximately 26% of the cases.

Finally, the Chi-Square test of independence and Fisher's exact test showed that CB perpetration occurrence and CB victimisation occurrence are not independent. While in addition, the multinomial logistic regression showed that an increase in CB

perpetration results in increased odds of CB victimisation, and the opposite.

Therefore, confirming the set hypothesis.

### **12.5. Conclusion**

The overall findings of the chapter 12 suggest that there is definite overlap between CB victimisation and perpetration as others have previously discussed (Craig & Pepler, 1995). In addition, the more one engages in CB victimisation or perpetration, the higher the likelihood of experiencing the opposite. If we were to stand on the descriptive statistics and the reported rates, it could be assumed that it is easier for a perpetrator to be victimised, than a victim to become a perpetrator. Therefore, disagreeing with Karabacak, et al. (2015) who stated that students who face CB victimisation are more motivated to CB perpetrate. It is advised that educators and those attempting to fight CB to take into account the possibility of victims reciprocating with perpetration; and guide such individuals to take the first step in breaking the cycle by retaining their self-control and attempt to resolve the incident in more mature ways. Concluding, it should be mentioned that other factors might play a role in the role switch, such age or impulsivity as suggested in previous literature. Such factors are examined next, starting with chapter 13 that focuses on the rigid background factors.

## ***Chapter 13 - Background Factors and CB***

### **13.1. Introducing the Background Factors in Relation to CB**

Up to this chapter, it was shown that the way the Internet is used and the access to social media play a role in CB. It was also shown that SB and CB are not independent and one could lead to the other. Additionally, it was seen that there are similarities between SB and CB in terms of victim/perpetrator characteristics. Moreover, it was shown that some of the rigid background factors affect SB; consequently, the same aspects are examined in relation to CB, starting with age.

### **13.2. Age and CB**

There is a substantial amount of empirical works on age and CB (Li, 2007); however, findings appear inconsistent (Yilmaz, 2011). For example, Robson and Witenberg (2013) concluded that age significantly predicts involvement in CB, with older children reporting higher rates of involvement than younger children do. They also showed that females are more likely to report CB during early to mid-adolescence, compared to males that show higher levels of CB during later adolescence. However, both genders reach the CB peak at the age of 11 years old (Barlett & Coyne, 2014), a period that might persist until the age of 17 (Kowalski, Giumetti, Schroeder & Lattanner, 2014; Tarablus, Heiman & Olenik-Shemesh, 2015). Such observation raises questions regarding researchers' "obsession" to focus predominantly on school-aged individuals, and majorly neglecting older Internet users; which, is one of the aspects that the present study attempts to cover. In general, past literature about the association of age and CB is that CB increases with age, with younger individuals facing and exhibiting more discrete forms of CB than older individuals (Tarapdar & Kellett, 2013). Understandably, if we consider that as age increases online access increases (Turan et al., 2011). In addition, parental monitoring

declines during adolescence and onwards, therefore putting youngsters at a greater risk for CB involvement and exposure (Ang, 2015). It can be seen that previous research, on one hand suggests older individuals as more at risk for CB involvement, and on the other, younger individuals face the same risks. Therefore, the present study takes this aspect further in order to provide a more clear direction.

### **13.3. Gender and CB**

Information on gender and CB appeared relatively more limited in comparison to SB. Nonetheless, some authors reported significant gender differences (Li, 2006) such as that males were more likely to be CB perpetrators than females, while in addition female CB victims were more likely to inform adults about their CB experiences than males. Others (Beckman et al., 2013; Connell, Schell-Busey, Pearce & Negro, 2014; Heiman & Olenik-Shemesh, 2015) agreed and further reported that girls are more involved in CB as victims than boys, who tend to be CB perpetrators. However, Erdur-Baker (2010) disagreed and stated that males are more likely to be CB victims than females. Finally, Barlett and Coyne (2014) supported that girls are more likely to report CB during early to mid-adolescence, while males show higher levels of CB involvement during later adolescence. Once more, it can be seen that one can argue both ways when it comes to gender and CB, and this is where the current study attempts to shed some light.

### **13.4. Race/ethnicity and CB**

The association between race /ethnicity and SB is more clear compared to the association with CB (see Kessel Schneider, O'Donnell & Smith, 2015). Some (Schneider, O'Donnell, Stueve & Coulter, 2012; Guo, 2016) reported that they found no association between the variables, nor were there any differences that could have been explained by race or ethnicity in relation to CB. Others (Price, Chin, Higa-

McMillan, Kim, & Frueh, 2013) suggested that when looking into such associations, CB should be considered in combination with SB as it frequently co-occurs. However, following recent terrorist attacks globally, many Muslim individuals have been cyber-bullied; occasionally expressed with online campaigns, other times as cyber harassment, cyber incitement and of course in the form of threats of offline violence (Awan & Zempi, 2016). Additionally, some researchers (Wright, Aoyama, Kamble, Li, Soudi, ... & Shu, 2015) reported that they found no differences in terms of CB and country of origin, while Cleland (2014) reported that racist comments flourish in the social media, particularly against Muslims. In line with the latter study, Bonansinga (2015) reported that the growing number of Muslims in Europe, combined with the their increased negative visibility offered by the media, is challenging identities in Europe and producing cultural polarisation. Thus, it is possible that CB could be associated with ones country of origin; however, this could be driven by misconceptions. Such misconceptions have not been apparent only in the western countries. For example, in South Africa, xenophobia and online attacks are not targeting only non-African natives but African natives as well, such as Nigerians; under the misconception, that Nigerians are commonly involved in criminal acts (Oyedemi, 2015). From the limited existing literature, it can be seen that there is no apparent direction and no clear evidence on whether ethnicity plays a role in CB, therefore, signifying the importance of exploring this factor further.

### **13.5. Religion and CB**

Research on religion and CB is scarce. To our knowledge, this association has been approached as part of racial CB, which was previously discussed as part of research on diverse societies (Lapidot-Lefler & Hosri, 2016). Therefore, findings

from this project will add and contribute to the limited existing literature related to CB.

### **13.6. Sexual Orientation and CB**

Even though CB was introduced much later than SB, nonetheless, the association between sexual preferences and CB has been investigated. Results from various studies indicated that CB in the lives of lesbian, gay, bisexual, and transgendered students is a common phenomenon expressed highly through social media (Cooper & Blumenfeld, 2012). Whereas others (Varjas, Meyers, Kiperman & Howard, 2013) informed that although the social media provide the means for the CB victimisation of such minority groups, nonetheless, they also prevent social isolation for lesbian, gay, and bisexual adolescents.

### **13.7. Disabilities and CB**

The association between disabilities and CB appeared understudied; nonetheless, literature provides limited information (see Kowalski & Fedina, 2011). For example, Bauman and Pero (2011) used 30 secondary students with hearing disabilities, and found no significant differences in terms of CB among students with hearing impairments and those that had no such disabilities. Other authors (Landstedt & Persson, 2014) that focused more on CB and the mental health spectrum of disabilities indicated mostly the negative impact of CB on people's mental health, rather how mental health could be a factor for CB. Whereas, Kowalski, Morgan, Drake-Lavelle and Allison (2016) reported that students with disabilities are at particular risk for CB victimisation, but in addition they found that individuals with autistic traits were more likely to CB perpetrate. Although, there seems to be a direction shown in previous literature, still research on this aspect is limited; therefore, indicating the necessity for more examination.

### **13.8. Mental Health and CB**

Apart from Kowalski, et al. (2016), no other studies were found that explored the association between mental health and CB. Most of the studies focused on the impact of CB to mental health (see Goebert, Else, Matsu, Chung-Do & Chang, 2011; 2010; Spears, Taddeo, Daly, Stretton & Karklins, 2015; Fahy, Stansfeld, Smuk, Smith, Cummins & Clark, 2016) rather than perceiving mental health as a factor for CB involvement. Thus, this study will attempt to cover this probable gap in literature.

### **13.9. Physical Health and CB**

Most studies showed how CB has a negative impact on people's health (Kowalski & Limber, 2013). However, Rachoene and Oyedemi (2015) examined CB among South African youth on Facebook and revealed CB attacks focused on victims' intelligence and physical appearance. Moreover, if it was to be considered that obesity is a physical health issue, then more empirical work was found; with findings generally agreeing and indicating that appearance oriented CB is quite common particularly for girls (Berne, Frisén & Kling, 2014). Generally, appearance and CB appeared associated, particularly when it comes to body weight and body image (Calvete, Orue & Gámez-Guadix, 2016). However, CB and appearance is a two-way relationship as frequently individuals can be victimised for their appearance and that has an effect on their body image and how victims perceive themselves. Which in turn leads to lower self-esteem, isolation, depression, etc.; consequently, victims might begin to follow unhealthy life styles, thus leading to eating disorders that result in appearance fluctuations (King, Moorfoot & Kotronakis, 2015). It is therefore quite apparent that physical health at least in terms of appearance plays an important role in cyberspace, particularly as a risk factor for victimisation (Berne et al., 2014).

### **13.10. Background Factors – Related Hypotheses**

1. Due to the non-directional previous literature, no specific expectations were set for age, gender, ethnicity, religion and mental health; consequently, the factors are explored rather than tested.
2. It is assumed that sexual orientation plays a role in CB victimisation.
3. Physical health could play a role in CB victimisation.

### **13.11. Results**

**Inferential Statistics:** To explore the background predictors in terms of CB victimisation occurrence, CB victimisation intensity, CB perpetration occurrence, and CB perpetration intensity four regression models were run. Multinomial logistic regression was preferred for CB victimisation and CB perpetration occurrence, and linear regression for CB victimisation and CB perpetration intensity. The examined predictors were: age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental health, and physical health.

**Background Factors and CB Victimization Occurrence:** A multinomial logistic regression analysis was conducted to assess whether age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental health, and physical health, had a significant effect on the odds of observing each response category of CB victimisation occurrence relative to No. Assumptions were taken into account (see Table 13.11.1 in appendix B). The results of the multinomial logistic regression model were significant ( $\chi^2 (36) = 84.33, p < .001$ ), suggesting that age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental health, and physical health had a significant effect on the odds of observing at least one response category of CB victimisation occurrence relative to No, the McFadden R-squared value was 0.12. Since the overall model was significant, each predictor was examined further.

The regression coefficient for age in response category Yes of CB victimisation was significant ( $B = -0.05$ ,  $\chi^2 = 6.18$ ,  $p = .013$ ), suggesting that one unit increase in Age would decrease the odds of observing the Yes category of CB victimisation occurrence relative to No by 4.61%. Moreover, the regression coefficient for gender male in response category Yes of CB victimisation occurrence was significant ( $B = -0.73$ ,  $\chi^2 = 3.99$ ,  $p = .046$ ), suggesting that being male would decrease the odds of observing the Yes category of CB victimisation occurrence relative to No by 51.77%. Next, the regression coefficient for No religion in response category Yes of CB victimisation occurrence was significant ( $B = 0.66$ ,  $\chi^2 = 5.14$ ,  $p = .023$ ), suggesting that having no religion would increase the odds of observing the Yes category of CB victimisation occurrence relative to No by 93.50% (see Table 13.11.2).

Table 13.11.2. *Multinomial Logistic Regression Table with CB victimisation occurrence predicted by Age, Gender, Ethnicity, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	Response	B	SE	$\chi^2$	p	OR
(Intercept)	Sort of	-33.16	9010.54	0.00	.997	
Age	Sort of	-0.04	0.04	1.37	.242	0.96
Gender Male	Sort of	-1.99	1.04	3.65	.056	0.14
Black African Caribbean Black British	Sort of	0.21	1.23	0.03	.861	1.24
Middle eastern	Sort of	-17.93	9778.93	0.00	.999	0.00
Mixed ethnic groups	Sort of	-0.66	1.49	0.20	.657	0.52
White	Sort of	-0.78	1.15	0.46	.499	0.46
Religion Muslim	Sort of	-0.42	1.13	0.14	.711	0.66
Religion No religion	Sort of	0.27	0.49	0.31	.578	1.31
Religion Other	Sort of	-17.06	5898.94	0.00	.998	0.00
Heterosexual	Sort of	-0.48	0.85	0.31	.576	0.62
Homosexual	Sort of	-16.98	6285.64	0.00	.998	0.00
S.O. Prefer not to say	Sort of	-17.26	6761.06	0.00	.998	0.00
Disabilities No	Sort of	16.78	5971.50	0.00	.998	$1.93 \times 10^7$
Disabilities Yes	Sort of	16.90	5971.50	0.00	.998	$2.19 \times 10^7$
Mental health No	Sort of	-0.25	1.19	0.04	.834	0.78
Mental health Yes	Sort of	-0.47	1.26	0.14	.711	0.63
Physical health No	Sort of	16.74	6747.66	0.00	.998	$1.86 \times 10^7$
Physical health Yes	Sort of	16.00	6747.66	0.00	.998	$8.88 \times 10^6$
(Intercept)	Yes	-1.04	1.77	0.35	.556	
Age	Yes	-0.05	0.02	6.18	.013	0.95
Gender Male	Yes	-0.73	0.36	3.99	.046	0.48
Black African Caribbean Black British	Yes	-0.02	0.98	0.00	.987	0.98
Middle eastern	Yes	-19.41	9491.32	0.00	.998	0.00
Mixed ethnic groups	Yes	-0.05	0.86	0.00	.958	0.96
White	Yes	-0.23	0.73	0.10	.751	0.79
Religion Muslim	Yes	-0.10	0.75	0.02	.891	0.90
Religion No religion	Yes	0.66	0.29	5.14	.023	1.94
Religion Other	Yes	0.84	0.99	0.72	.395	2.32
Heterosexual	Yes	-0.76	0.46	2.66	.103	0.47
Homosexual	Yes	-1.98	1.19	2.76	.097	0.14
S.O. Prefer not to say	Yes	-0.63	1.13	0.31	.580	0.53
Disabilities No	Yes	1.05	1.28	0.67	.412	2.86
Disabilities Yes	Yes	1.39	1.29	1.15	.284	4.01
Mental health No	Yes	-0.47	0.71	0.44	.508	0.62
Mental health Yes	Yes	0.37	0.73	0.25	.616	1.44
Physical health No	Yes	0.98	1.26	0.61	.437	2.66
Physical health Yes	Yes	2.12	1.28	2.74	.098	8.31

Note.  $\chi^2(36) = 84.33, p < .001$ , McFadden  $R^2 = 0.12$ .

*Background Factors and CB Victimisation Intensity:* Next, linear regression analysis was conducted to assess whether age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental health, and physical health significantly predicted CB victimisation intensity. Assumptions were examined (see Figure 13.11.1, Figure 13.11.2, Table 13.11.3 and Figure 13.11.3 in appendix B). The results of the linear regression model were significant ( $F(18,389) = 4.38, p < .001, R^2 = 0.17$ ), indicating that approximately 17% of the variance in CB victimisation intensity is explainable by age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental health, and physical health. Age significantly predicted CB victimisation intensity ( $B = -0.10, t(389) = -3.21, p = .001$ ). This indicates that on average, a one-year increase in age will decrease the value of CB victimisation intensity by 0.10 units. In addition, the Male category of gender significantly predicted CB victimisation intensity ( $B = -1.39, t(389) = -2.10, p = .037$ ). Suggesting that moving from the female to male category of gender, the mean value of CB victimisation will decrease on average by 1.39 units. Moreover, the Middle Eastern category of ethnic group significantly predicted CB victimisation intensity ( $B = -5.19, t(389) = -2.23, p = .027$ ). Indicating that moving from the Asian Asian/British to Middle Eastern category of ethnic group, the mean value of CB victimisation intensity will decrease on average by 5.19 units. Furthermore, the White category of ethnic group significantly predicted CB victimisation intensity ( $B = -2.97, t(389) = -2.22, p = .027$ ). Suggesting that moving from the Asian Asian/British to White category of ethnic group will decrease the mean value of CB victimisation intensity by 2.97 units on average. In addition, the Muslim category of religion significantly predicted CB victimisation intensity ( $B = -3.14, t(389) = -2.28, p = .023$ ), indicating that moving from the Christian all

denominations to Muslim category of religion will decrease the mean value of CB victimisation intensity by 3.14 units on average (see Table 13.11.4).

Table 13.11.4. Results for Linear Regression with Age, Gender, Ethnicity, Religion, Sexual orientation, Disabilities, Mental health, and Physical health predicting CB victimisation intensity.

Variable	B	SE	95% CI	$\beta$	t	p
(Intercept)	10.65	2.84	[5.07, 16.23]	0.00	3.75	< .001
Age	-0.10	0.03	[-0.16, -0.04]	-0.15	-3.21	.001
Gender Male	-1.39	0.66	[-2.69, -0.09]	-0.10	-2.10	.037
Black African Caribbean Black British	-2.18	1.85	[-5.82, 1.46]	-0.06	-1.18	.241
Middle eastern	-5.19	2.33	[-9.76, -0.61]	-0.11	-2.23	.027
Mixed ethnic groups	-0.69	1.65	[-3.94, 2.55]	-0.03	-0.42	.674
White	-2.97	1.34	[-5.61, -0.33]	-0.24	-2.22	.027
Religion Muslim	-3.14	1.37	[-5.84, -0.44]	-0.22	-2.28	.023
Religion No religion	0.73	0.57	[-0.40, 1.86]	0.07	1.28	.202
Religion Other	-3.13	2.10	[-7.26, 1.00]	-0.08	-1.49	.137
Heterosexual	-1.36	0.99	[-3.31, 0.59]	-0.08	-1.37	.170
Homosexual	-0.90	1.99	[-4.81, 3.01]	-0.02	-0.45	.652
S.O. Prefer not to say	0.77	2.26	[-3.68, 5.21]	0.02	0.34	.735
Disabilities No	-1.44	2.04	[-5.44, 2.57]	-0.09	-0.71	.481
Disabilities Yes	0.90	2.10	[-3.23, 5.03]	0.05	0.43	.669
Mental health No	-0.46	1.45	[-3.30, 2.38]	-0.04	-0.32	.750
Mental health Yes	1.29	1.49	[-1.64, 4.22]	0.11	0.87	.387
Physical health No	2.43	2.07	[-1.65, 6.50]	0.17	1.17	.243
Physical health Yes	4.01	2.14	[-0.20, 8.21]	0.26	1.87	.062

Note. Results:  $F(18,389) = 4.38, p < .001, R^2 = 0.17$

Unstandardized Regression Equation: CB victimisation intensity = 10.65 - 0.10\*Age - 1.39\*Gender Male - 2.18\* Black African Caribbean Black British - 5.19\* Middle eastern - 0.69\* Mixed ethnic groups - 2.97\* White - 3.14\*Religion Muslim + 0.73\*Religion No religion - 3.13\*Religion Other - 1.36\* Heterosexual - 0.90\* Homosexual + 0.77\*S.O. Prefer not to say - 1.44\*Disabilities No + 0.90\*Disabilities Yes - 0.46\*Mental health No + 1.29\*Mental health Yes + 2.43\*Physical health No + 4.01\*Physical health Yes

*Background Factors and CB Perpetration Occurrence-Intensity:* The same process was followed for CB perpetration occurrence and CB perpetration intensity, however the results of the multinomial logistic regression model were non-significant,  $\chi^2(36) = 37.98, p = .379$  and likewise for the linear model  $(F(18,389) = 1.02, p = .439, R^2 = 0.04)$ .

### 13.12. Discussion

As with SB, likewise with CB, this project focused intensively on the various well-studied and neglected factors that could be related to CB. Chapter 13 examined

whether age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental health, and physical health, have a significant effect on CB victimisation occurrence, victimisation intensity, CB perpetration occurrence, and perpetration intensity. Two multinomial regression models examined the factors in terms of CB occurrence, and two linear models examined the very same factors in terms of CB intensity.

Starting with the first multinomial model that indicated age, gender, and religion as significant factors for CB victimisation. The findings showed that as youngsters get older, the risk for CB victimisation decreases. Therefore, the findings go against other studies (Robson & Witenberg, 2013), which suggested that CB involvement increases with age. However, it should be taken into account that the sample of this study was mostly concentrated in the twenties rather than school age children. Previous research (Barlett & Coyne, 2014; Kowalski, et al., 2014) has shown that the most intense period of CB involvement is between the age of 11 and 17; thus, this sample's mean age may explain the findings. Perhaps after a particular age victims might attain the maturity and experience to deal with CB victimisation. Older individuals indeed have more freedom online and less parental monitoring, but they might have increased self-control and be more technologically skilled to block their perpetrator and avoid abusive individuals. In terms of CB victimisation intensity, the findings once more confirmed that as people get older CB victimisation intensity tends to decrease. Regardless, one might wonder what difference would that make if the psychological damage has already happened. Perhaps, this particular finding can give victims the consolation that victimisation does not last forever; especially as victims gain maturity, experience, knowledge and resilience in dealing with CB perpetrators.

The next significant factor of the multinomial model was gender, which indicated that male Internet users are more protected from CB victimisation, than female users. Similar results were shown from the linear model in terms of CB victimisation intensity. The findings agree with previous literature (Li, 2006) that suggested females Internet users as more at risk for becoming CB victims than males and disagree with others (Erdur-Baker, 2010) that supported the opposite. As this factor is absolutely rigid in terms of manipulation, parents and educators are advised to focus more on the female population in terms of training and education on how to deal and overcome CB victimisation.

Following, religion or more appropriate, atheism, was flagged as a significant risk factor for CB victimisation occurrence. This finding leads to numerous assumptions; it may be that atheists have a lesser connection with a community group or religious group and therefore they may receive less support when victimised. Alternatively, individuals that are not so tied up by rules and morals followed by certain religious groups, may engage in more risky online behaviours and that could result in increased likelihood of CB victimisation. In terms on intensity, the findings were more insightful; it was found that Muslims are more protected from intense CB victimisation in comparison to Christians.. This finding is perhaps surprising if one considers that in the past few years Muslims have been targeted online due to the terrorist actions of a few radical Muslim individuals; leading many people to become racists and prejudiced against this religious group (Bonansinga, 2015; Cleland, 2014; Awan & Zempi, 2016). As no one can or should advise others in terms of whether they should or should not be religious or in terms of which religious group they should follow, it is concluded that young individuals need support from a group of their choice. As for the results of the additional analysis in terms of victimisation

intensity, it may well be, that cultural norms or family rules closely related to the Muslim religion and the community, protect individuals from being severely victimised. Perhaps the feeling of belonging is greater in the Muslim community than in other religions or atheists. Finally, it should be studies on CB and religion, are scarce, placing the current findings amongst the first reported significant results.

In terms of CB victimisation occurrence and the rest of the examined factors, those being, race/ethnicity, sexual orientation, disabilities, mental health, and physical health including aspects of appearance, no significant effects were found. Thus, disagreeing with previous literature (Cooper & Blumenfeld, 2012; Kowalski, et al., 2016; Rachene & Oyedemi, 2015; Berne, et al., 2014; Calvete, et al., 2016), that supported such effects or indicated sexual orientation, disabilities and appearance as predictors for CB victimisation. While in addition, rejecting the assumptions that sexual orientation and physical health play a role in CB victimisation. The current sample was predominantly heterosexual and had no physical health issues; it may well be that the data distribution affected the results. Therefore, it is advisable that the particular aspects require further exploration with a broader sample.

Although, ethnicity did not appear to have an effect on CB victimisation occurrence, nonetheless, in terms of intensity, it was found that Middle Eastern and White individuals are at least risk for intense victimisation, in comparison to Asian and Asian/British Internet users. It could be assumed that Middle Eastern individuals receive more support or advice from their community in comparison to the Asian community, and it may be that Asian individuals are more targeted online than white individuals are. Consequently, the findings suggest that attention must be paid to ethnic minority groups, particularly to Asian and Asian/British, despite opposing

previous literature (Schneider, et al., 2012; Guo, 2016) that reported no significant results in terms of race/ethnicity and CB.

Contrasting to CB victimisation, none of the aforementioned factors showed significant effects on CB perpetration occurrence or predicted CB perpetration intensity. For example, in terms of age we would agree with previous studies that suggested that CB can start during late primary and continue until university level and later on in adulthood (Tarablus, Heiman & Olenik-Shemesh, 2015). The findings also disagree with others (Li, 2006; Beckman et al., 2013; Connell, et al., 2014) who reported that boys tend to be CB perpetrators more than girls are. Moreover, in terms of CB perpetrating and religion, no such effect was found by any of the models unlike CB victimisation. Likewise, sexual orientation, disabilities, mental health and physical health had no effect on CB perpetration, or were these factors significant predictors for CB perpetration intensity. However, as the sample size of the CB perpetrators is quite limited, it could be assumed that a larger sample may provide more insightful results.

### **13.13. Conclusion**

The overall results of this chapter indicated that age, gender, race/ethnicity, and religion play an important role, but only in terms of CB victimisation and victimisation intensity; whereas for CB perpetration or perpetration intensity, no significant effects were recorded. It is acknowledged that the perpetrators' sample size is limited; therefore replication of the study with a larger sample is required. However, given the significant findings, presently, it is concluded that, anti-CB-policies must consider age, gender, religion and ethnicity, as important factors, particularly for victimisation that, could shift victimisation either towards a decrease or intensify it. But as with SB, likewise in CB, other factors might mediate, and such

factors could be related to participants' upbringing; which, is examined in the next chapter, by exploring and testing how family and friends affect CB victimisation and perpetration.

## ***Chapter 14 - Factors Related to Family/friend Environment and CB***

As mentioned in the previous chapter, it is not only the background factors that play a role in CB involvement; family and friend environment is often found in the heart of juvenile delinquency and crime involvement, therefore, it is likely that related aspects play a role in CB as well.

### **14.1. Parent Connectedness, Communication and CB**

Research in terms of a possible association between parent-child connectedness, communication, parents' involvement in children's lives and CB, is still ongoing (Cross et al., 2015). Literature indicated that parental monitoring and the relationship between parents and children could affect CB levels (Low & Espelage, 2013; Spies Shapiro & Margolin, 2014). Particularly, Khurana, Bleakley, Jordan and Romer (2015) informed that parental monitoring through communication and efforts to regulate specific forms of Internet use are associated with reduced rates of CB. Likewise, Fousiani, Dimitropoulou, Michaelides and Van Petegem (2016) revealed that parental psychological control directly predicted CB, whereas parental autonomy and support was associated with lower levels of CB. However, parental monitoring in general does not prevent perpetration (Floros, Siomos, Fisoun, Dafouli & Geroukalis, 2013). Others (Athanasiaides et al., 2016) found that parental mediation such as absence of discussion with the children predicted CB victimisation, while Chang et al. (2015) had earlier found that parental restrictive mediation was associated with reductions in adolescent Internet addiction and CB involvement. It is seen that there are indications of parental involvement and communication as aspects that affect victimisation, whereas information on perpetration is limited; thus worthy of further examination.

## **14.2. Types of Parenting and CB**

Research on types of parenting approaches in relation to CB is scarce; however, some studies (Valcke, Bonte, De Wever & Rots, 2010) found that authoritative Internet parenting style is more common, followed by permissive, authoritarian, laissez-faire Internet parenting style and last a combination of authoritative and permissive parenting style. Other studies (Kokkinos, Antoniadou, Asdre & Voulgaridou, 2016) indicated that democratic parenting style (low warm involvement and high behavioural control) is more common (28.7%), followed by indulgent (high warm involvement and low behavioural control) (27.7%), neglectful (low warm involvement and low behavioural control) (18.6%) and last authoritative (high warm involvement and high behavioural control) (16.4%). In terms of the association to CB, the latter study showed that children of democratic parents had significant higher scores in safe Internet use, thus more protected from CB. It was also shown (Leung & Lee, 2012) that a significant and negative bivariate relationship exists between strictness and internet addiction; meaning that the stricter and more involved the parenting style, the lower the likelihood of adolescents becoming addicted to the Internet, and therefore more protected by CB. Finally, Navarro, et al. (2013,2012;) informed that when parents engage in conversations with children about online risks automatically protect them from CB involvement. Therefore, concluding that a more democratic parental style with a restrictive aspect assists in decreasing the likelihood of CB involvement. However, the restriction should not be of a level that limits children and adolescents from socialising opportunities and participation in online group activities (Good & Fang, 2015). It is worthwhile to mention that parenting styles change with children's age (Özgür, 2016) in a way that as children mature Internet parenting style tends to change towards laissez-faire (Cassidy, Brown

& Jackson, 2012). It is apparent that the parenting styles vary and present some effect on CB involvement, while as mentioned earlier the related research is limited; consequently, it was decided that the parenting style requires more focus and examination.

#### **14.3. Sibling Connectedness, Communication and CB**

When exploring previous studies in relation to sibling connectedness, communication and its relation to CB, the findings were insufficient. Nonetheless, traces of the association appeared in one article (Knopf, 2015) that signified family connectedness, support and warmth as a protective factors; however, that is only if the authors included siblings when the study was conducted. As a result, the present study is examining this aspect in great detail and attempts to cover this research gap.

#### **14.4. Sibling Teasing and CB**

Although siblings play a major role in terms of support at school as shown in previous chapters, nonetheless this field has not been majorly explored. Only one study was found (Tanrikulu & Campbell, 2015) that looked into online sibling teasing and its possible relationship to CB involvement in general. Findings suggested that sibling CB was extremely low, to the point that it could not be calculated. As a result, this study explores the particular aspect and covers the associated limitation and neglected research area.

#### **14.5. Friendship Quality, Connectedness, Communication and CB**

Literature on CB in relation to friendship quality, connectedness and communication is also limited and researchers call for further investigation (Nilan, Burgess, Hobbs, Threadgold & Alexander, 2015). Regardless, one study (Aoyama, Saxon & Fearon, 2011) indirectly investigated this association and reported a statistically significant association between CB victimisation and internalising

problems; while friendship quality did not seem to moderate negative psychological effects of CB. The authors further advised that even though peer support moderates victimisation and perpetration behaviour in terms of SB, no such association was proven for CB. Due to the limited number of previous studies on this research area, further attention is paid on sibling teasing, in an attempt to provide more insightful information.

#### **14.6. Family and Friend Environment –Related Hypotheses**

Due to the limited previous literature and lack of a particular direction regarding the possible effect of the aforementioned factors, only two hypotheses were set, with reservations, once more because of the limited literature.

1. Parental involvement and communication is a protective factor for CB victimisation; no expectations are set for perpetration.
2. A permissive parenting style could function as a protective factor for CB victimisation; no expectations are set for perpetration.

#### **14.7. Results**

##### ***Inferential Statistics***

###### ***Independent Variables Related to Parents and CB Victimisation-Perpetration Occurrence:***

First a series of Chi-Square Tests of Independence were conducted to examine whether CB victimisation occurrence and friendly relationship with parents, parenting style, parental communication, parents being aware of what is going on in their children's lives, parental support, parental engagement, and whether parents were aware if their children skipped school, were independent. However, none of the examined relationships showed significant results. The same process took place for CB perpetration occurrence and once more, none of the relationships was found significant.

### *Independent Variables Related to Parents and CB Victimisation-Perpetration*

*Intensity:* The independent variables were tested also with a series of Kruskal-Wallis rank sum tests for any significant differences in CB victimisation and perpetration intensity; however, no significant results were found.

### *Independent Variables Related to Siblings and CB Victimisation-Perpetration*

*Occurrence:* Next a second series of Chi-Square Tests of Independence were conducted to examine whether CB victimisation occurrence and siblings, sibling relationship, sibling support, sibling teasing, whether parents were aware of the sibling teasing incidents, and how parents reacted to sibling teasing. Results revealed that only sibling teasing in relation to CB victimisation occurrence showed significance ( $\chi^2(2) = 8.54, p = .014$ ) (see Table 14.7.1 in appendix B). Likewise, the same was followed for CB perpetration occurrence and the independent variables related to siblings; however, only parental reaction to sibling teasing showed significant results in relation to CB perpetration occurrence ( $\chi^2(14) = 27.58, p = .016$ , with Fisher's two tailed exact test result being  $16.69, p = .043$ ) (see Table 14.7.2a and 14.7.2b in appendix B).

### *Independent Variables Related to Siblings and CB Victimisation-Perpetration*

*Intensity:* For consistency, a series of Kruskal-Wallis rank sum tests were conducted to assess if there were significant differences in CB victimisation and perpetration intensity between the levels of sibling related independent variables. In terms of SB victimisation intensity, results were significant only for sibling teasing ( $\chi^2(1) = 4.09, p = .043$ ) (see Table 14.7.6, Figure 14.7.1 and Table 14.7.7 in appendix B), whereas for SB perpetration intensity, results were only significant sibling relationship ( $\chi^2(2) = 6.64, p = .036$ ) (see Table 14.7.8, Figure 14.7.2 and Table 14.7.9 in appendix B).

### *Independent Variables Related to Friends and CB Victimisation-Perpetration*

*Occurrence:* Finally, a series of Chi-Square Tests of Independence were conducted to examine whether CB victimisation and friends, friends being aware of what is going on in the victim's life, friends' support, and whether parents of victims' knew victims friends were independent. Only the latter combination showed significant results ( $\chi^2(4) = 11.58, p = .021$ ) (see Table 14.7.3 in appendix B). Similarly, a series of Chi-Square Tests of Independence were conducted to examine whether CB perpetration occurrence and the independent variables related to friends were independent; only friends' knowing what is going on in perpetrators' lives ( $\chi^2(6) = 22.35, p = .001$ , Fisher's two tailed exact test = 13.78,  $p = .023$ ) (see Table 14.7.4 in appendix B) and friends' support ( $\chi^2(4) = 15.86, p = .003$ , Fisher's two tailed test = 9.76,  $p = .035$ ) (see Table 14.7.5 in appendix B) showed significant results in relation to CB perpetration occurrence.

### *Independent Variables Related to Friends and and CB Victimisation-*

*Perpetration Intensity:* For SB victimisation and perpetration intensity, the Kruskal-Wallis rank sum tests showed no significant results.

### *Regression Models for CB Victimization Occurrence and the Significant*

*Variables Related to Family/Friends:* Following, the independent variables that showed significant results in relation to the dependent variables were further explored with regression models. First, a multinomial logistic regression analysis was conducted to assess whether sibling teasing and whether parents know their children's friends, had a significant effect on the odds of observing each response category of CB victimisation relative to No, assumptions were taken into account (see Table 14.7.10 in appendix B). The results of the multinomial logistic regression model were significant ( $\chi^2(6) = 15.80, p = .015$ ), suggesting that sibling teasing and whether

parents know their children's friends had a significant effect on the odds of observing at least one response category of CB victimisation relative to No, the McFadden R-squared value was 0.03. Since the overall model was significant, each predictor was examined further. The regression coefficient for sibling teasing Yes in response category Yes of CB victimisation was significant ( $B = 0.67, \chi^2 = 7.21, p = .007$ ), suggesting that a one unit increase in sibling teasing Yes would increase the odds of observing the Yes category of CB victimisation occurrence relative to No by 95.10%. Also, the regression coefficient for whether parents know their children's friends Sort of in response category Sort of, of CB victimisation occurrence was significant ( $B = -1.48, \chi^2 = 4.09, p = .043$ ), suggesting that a one unit increase in parents knowing friends Sort of would decrease the odds of observing the Sort of category of CB victimisation relative to No by 77.30%. The regression coefficient for whether parents know their children's friends Yes in response category Sort of, of CB victimisation occurrence was significant ( $B = -1.70, \chi^2 = 7.61, p = .006$ ), suggesting that a one unit increase in parents knowing friends Yes would decrease the odds of observing the Sort of category of CB victimisation relative to No by 81.81% (see Table 14.7.11).

Table 14.7.11. *Multinomial Logistic Regression Table with CB victimisation occurrence predicted by Sibling teasing and Parents know friends.*

Variable	Response	B	SE	$\chi^2$	p	OR
(Intercept)	Sort of	-0.76	0.61	1.58	.209	
Sibling teasing Yes	Sort of	0.32	0.43	0.58	.448	1.38
Parents know friends Sort of	Sort of	-1.48	0.73	4.09	.043	0.23
Parents know friends Yes	Sort of	-1.70	0.62	7.61	.006	0.18
(Intercept)	Yes	-1.20	0.62	3.68	.055	
Sibling teasing Yes	Yes	0.67	0.25	7.21	.007	1.95
Parents know friends Sort of	Yes	0.40	0.66	0.37	.545	1.49
Parents know friends Yes	Yes	0.06	0.62	0.01	.922	1.06

Note.  $\chi^2(6) = 15.80, p = .015$ , McFadden  $R^2 = 0.03$ .

*Regression Models for CB Victimization Intensity and the Significant Variables Related to Family/Friends:* Next, a linear regression analysis was

conducted to assess whether sibling teasing and whether parents knowing friends significantly predicted CB victimisation intensity; however, the results of the linear regression model were non-significant ( $F(3,334) = 1.29, p = .277, R^2 = 0.01$ ).

*Regression Models for CB Perpetration Occurrence-Intensity and the Significant Variables Related to Family/Friends:* Likewise, a multinomial logistic regression analysis was conducted to assess whether sibling relationship, parental reaction to sibling teasing, friends knowing what is going on in perpetrators' lives, and friend support had a significant effect on the odds of observing each response category of CB perpetration relative to No, assumptions were taken into account (see Table 14.7.12 in appendix B). Although the overall model was significant ( $\chi^2 (28) = 45.36, p = .020$ ), none of the independent variables' categories showed any significant results in terms of predicting CB perpetration occurrence. Similarly, in terms of intensity the linear model showed no significant results ( $F(14,151) = 0.62, p = .848, R^2 = 0.05$ ).

## **14.8. Discussion**

Chapter 14 explored three categories of independent variables in relation to CB victimisation and perpetration occurrence, victimisation and perpetration intensity. The variables related to parents were: friendly relationship with parents, parenting style, parental communication, parents being aware of what is going on in their children's lives, parental support, parental engagement, and whether parents were aware if their children skipped school. The variables related to siblings were: whether participants have any siblings, sibling relationship, sibling support, sibling teasing, whether parents were aware of the sibling teasing incidents, and how parents reacted to sibling teasing. And last, the variables related to friends were: whether participants have any friends, friends being aware of what is going on in participants'

lives, friends' support, and whether parents of victims' knew victims friends. Due to the limited previous literature, in most instances the examination functioned more like exploration, attempting to cover the related research gaps. Only two expectations were set. Those being that, parental involvement and communication as well as a permissive parenting style could function as protective factors for CB victimisation. However, the assumptions were rejected, as there were not found any significant results from the Chi-Square of Independence or the Kruskal-Wallis tests. Therefore, none of the independent variables related to parents entered the regression models for further analysis. Such results go against previous studies (Spies Shapiro & Margolin, 2014; Khurana, et al., 2015) that suggested communication and a good relationship with parents reduces children's CB victimisation involvement, or similarly that parenting style could predict CB involvement (Fousiani, et al., 2016).

Following, the independent variables related to siblings were explored and the results showed that only sibling teasing in relation to CB victimisation occurrence showed significant results, indicating that the two variables were related. Likewise, the Kruskal-Wallis test showed that the mean rank of CB victimisation intensity was significantly different only between the levels of sibling teasing. Moreover, sibling-teasing functions as a significant risk factor for CB victimisation occurring, but no such effect was shown for CB victimisation intensity. Next, perpetration occurrence and parental reaction to sibling teasing appeared to be related. Whereas, in terms of CB perpetration intensity significant differences were found only between the levels of sibling relationship. However, both of the independent variables were non-significant factors in terms of an effect and prediction of both CB perpetration occurrence and intensity. Nonetheless, the results suggest that CB victims are somehow affected by the innocent or severe teasing that they experience from their

siblings. In comparison to previous studies (Tanrikulu & Campbell, 2015) that findings appeared relatively limited, this study found that sibling teasing plays an important role for CB victimisation. Therefore, parents should consider setting rules in terms of sibling teasing while also listen to their children when they complain of such behaviour. It could be that, when CB victims experience teasing at home their self-esteem becomes affected, consequently, accepting online victimisation by others. On the other hand, although parental reaction to sibling teasing and sibling relationship did not predict CB perpetration, nonetheless, there appears to be a relationship and differences between the closeness that perpetrators experience with their siblings. Therefore, the results could imply that CB perpetrators might learn such behaviour at home, particularly when they tease their siblings and parents do not intervene. In such cases, perpetrators might have false perceptions of what is right and wrong; such perceptions follow perpetrators online where they exhibit this learned behaviour. In addition, it seems that sibling relationship also plays a role in CB perpetration intensity. Perhaps when siblings engage in constant disagreements a negative climate results; consequently anger, frustration and even the need to externalise such feelings might lead youngsters to use CB as an exhaust. Subsequently, parents should teach their children of what behaviour is right and wrong and should attempt to settle any disagreements between the siblings. Besides, previous research (Knopf, 2015) has shown that a positive family environment with support and warmth functions as a protective factor for CB involvement.

Finally, the variables related to friends were examined and the results showed that only whether and how well parents know their children's friends is related to CB victimisation occurrence; whereas no such relationship was shown between the friend related variables and CB victimisation intensity. Moreover, the multinomial model

found that if parents know well who their children's friends are, it functions as a significant protective factor for CB victimisation. Such findings indicate that it is crucial for parents to be involved in their children's lives and monitor who their friends are; by doing so they increase the odds of protecting their children from negative influences and from being victimised online. Although, there were no statistical significant results for CB victimisation and friends' support, communication or connectedness as others have shown (Aoyama, Saxon & Fearon, 2011); nonetheless, it is advised that parents regulate their children's friendships in a healthy way.

On the other hand, CB perpetration occurrence and friends' knowing what is going on in perpetrators lives seemed related as did friends support. No such differences or relationships were found for perpetration intensity, while none of the variables seemed to have an effect on CB perpetration occurrence and intensity. Nonetheless, the findings suggest that friends play an important role in perpetrators lives. Assuming, that perpetrators act in negative ways as an expression of their difficulties, then friends could act as mediators that decrease the odds of perpetrators acting out. However, this can only be proven with further examination of the factors with a larger sample.

#### **14.9. Conclusion**

Concluding, chapter 14 showed that parents and the related variables do not affect CB victimisation or perpetration; nonetheless, it was shown that if parents know their children's friends well then the odds of CB victimisation decrease. Therefore, implying that parents should be actively involved in their children's lives, they should promote healthy sibling relationships and they should pay attention to the individuals that they children interact with; that being offline and online. In this

chapter it was also shown that sibling teasing is a significant risk factor for CB victimisation, whereas if parents know well their children's friends, functions as a significant protective factor for CB victimisation. On the other hand, parental reaction to sibling teasing appears related to CB perpetration occurrence, and there are indications of sibling relationships having some kind of effect on CB perpetration intensity, although, both variables were not proven significant predictors. Finally, it appears that friends' knowing what is going on in perpetrators lives and support from friends are associated with CB perpetration. It was indeed surprising that the aspects related to parents did not have a significant effect on CB; possibly, individual personality characteristics, which are examined in the following chapter, mediate the latter effects or the associations.

## ***Chapter 15 - Personality, Behavioural Factors and CB***

After examining the rigid background factors and the family and friend related factors, next, the individual personality and behavioural factors were tested and explored in detail, starting with empathy.

### **15.1. Empathy and CB**

The association between empathy and CB is well covered; some studies (Ang & Goh, 2010) reported that both males and females with low empathy scored higher on CB involvement, while Topcu and Erdur-Baker (2012) informed that the combined effect of affective and cognitive empathy mediates the gender differences in CB. Others (Brewer & Kerslake, 2015; Del Rey, Lazuras, Casas, Barkoukis, Ortega-Ruiz, & Tsorbatzoudis, 2016) further informed that low empathy was a significant individual predictor of CB perpetration, such that as empathy decreases, likelihood of CB perpetration increases. Whereas, Athanasiades, Baldry, Kamariotis, Kostouli and Psalti (2016) reported that empathy is not a strong predictor for either CB perpetration or CB victimisation. Regardless of the contradiction, Barlińska, Szuster and Winiewski (2013) found that individuals with high affective empathy provide more support to CB victims (Machackova & Pfetsch, 2016). It is also noteworthy to mention that some anti-CB strategies that use empathy training as a tool for CB reduction show promising results (Schultze-Krumbholz, Schultze, Zagorscak, Wölfer & Scheithauer, 2016; 2015). Finally, although there are indications that empathy is somehow related to CB, nonetheless, there is also a disagreement in literature, on whether it could function as a significant predictor. Thus, empathy is further explored in this part of the thesis, whilst being consistent, as empathy was also explored in relation to SB.

## **15.2. Self-esteem and CB**

Research on the association of CB and self-esteem revealed that students who experienced CB, both as a victim and a perpetrator, had significantly lower self-esteem than those who had little or no experience with CB (Patchin & Hinduja, 2010). Opposing, Robson and Witenberg (2013) found no association between self-esteem and CB, while Cénat, Hébert, Blais, Lavoie, Guerrier and Derivois (2014) reported that, although, girls with CB experiences show low self-esteem, the results from their study were substantial. Finally, Brewer and Kerslake (2015) stated that self-esteem is a significant predictor of CB victimisation and perpetration, in such a way that those with low self-esteem are most likely to report CB victimisation. Whereas, individuals with low levels of self-esteem and empathy are more likely to engage in CB perpetration. Once more, it can be seen that there is no clear direction in the related literature, although, there tends to be a slight agreement on the likelihood of CB victimisation if one has low self-esteem. Consequently, to confirm the latter, the current project includes self-esteem as a worthy factor for further exploration.

## **15.3. Aggression and CB**

The association between aggression and CB involvement has been deeply examined (Casas, Del Rey & Ortega-Ruiz, 2013; İçellioğlu & Özden, 2014; Runions & Bak 2015). Studies (Ang et al., 2011; Burton, Florell & Wygant, 2013) that investigated the matter reported that it is normative beliefs about aggression that present a significantly and positively association with CB. Irrespective, Pyżalski (2012) reported that 39% of adolescents electronically attacked others that they meet at school or the community, but are not their close friends. Moreover, 16.9% attacked a former romantic partner and 15.9% would attack groups of people (e.g. homeless, celebrities, etc.). Regardless, boys attacked more frequently groups or ideas and girls

attacked more often people they know from real life but are not close friends and former romantic partners. When it comes to distinguishing between proactive and reactive aggression in relation to CB, Ang et al. (2014) informed that proactive aggression is positively associated to CB, while reactive aggression and CB are not associated. Concluding, Rafferty and Vander Ven (2014) reported that online aggression is also expressed through motivations, such as cyber sanctioning (pressure from one's peers to modify his/her behavior), power struggles (ex-partners attempting to have the victim engage in sexual acts), and entertainment (attempt to hurt, humiliate, annoy, or provoke in order to elicit an emotional response for one's own enjoyment). Evidently, aggression has an effect on CB, however, aggression is comprised of sub-aspects, such as hostility; these sub-aspects have been somehow neglected in previous studies, therefore, require further examination.

#### **15.4. Anger and CB**

Although anger and aggression are frequently studied together, nonetheless, as mentioned previously, the association between anger and CB appeared understudied. Some studies (Ak et al., 2015), informed that CB victimisation is positively and directly related to anger-in and anger-out, and indirectly related to CB perpetration through anger-in. The researchers proposed that the inability to appropriately express anger could increase the potential for CB victims to subsequently victimise others as a form of revenge. The findings also showed that males who directed their anger inwards were more likely to become CB perpetrators than females, and males who were victimised online were more likely to express their anger outwards than females. Likewise, Lonigro, Schneider, Laghi, Baiocco, Pallini and Brunner (2015) found that the outward explosive expression of anger appears to be common among CB perpetrators, whilst Aricak and Ozbay (2016) added that alexithymia could explain

the increase in CB victimisation and perpetration. It is intensively shown that anger plays a role in CB, although there is more weight for perpetration than victimisation. And since as anger is perceived to be a strong factor for CB, it is included in this thesis and examined further.

### **15.5. Impulsivity and CB**

Impulsivity appeared to be associated with CB, particularly for males than females (Fanti, Demetriou & Hawa, 2012). For example, Workman (2012) suggested that impulsive behaviour is associated with cyber-smearing (campaign waged to damage the credibility or reputation of others over the Internet) because of limited self-control and vengefulness. However, impulsivity could be a temporary characteristic when people interact for the first time in cyberspace; young individuals could behave carelessly and impulsive during their first period of cyberspace access (Korenis & Billick, 2014), thus, risking CB involvement. Although, impulsivity appears as an important factor for CB, nonetheless, it is also understudied; therefore, in need for more examination.

### **15.6. Self control and CB**

Although researchers and educators inform that the Internet users need self-control to avoid cyber addiction (Catanzaro, 2011), little was said about how one must maintain a regulated online behaviour to avoid CB. However, Vazsonyi, Machackova, Sevcikova, Smahel and Cerna (2012) indicated that low self-control showed a moderate effect on offline bullying perpetration, which was linked to CB perpetration, while for victimisation the effect appeared weaker. Likewise, Marcum, Higgins, Freiburger and Ricketts (2014) stated that both males and females with lower levels of self-control were more likely to participate in CB. While Li, Holt, Bossler and May (2016) flagged low self-control a significant predictor for CB, particularly for

perpetration (You & Lim, 2016). Clearly, low self-control is perceived to be a risk factor for CB perpetration; however, in terms of victimisation little is known, thus the factors is further examined in this chapter.

### **15.7. Guilt and CB**

The association between guilt and CB was not easily found in literature; nevertheless, Weber, Ziegele & Schnauber (2013) showed that people frequently attribute more responsibility to the victim for the CB incident rather than blame the perpetrator; particularly when the victim is overly extravert. While Wang, Lei, Liu and Hu (2016) revealed that moral disengagement was significantly associated with CB; adolescents with high moral disengagement reported higher scores in CB than those with low moral disengagement and no sense of guilt. Concluding, moral disengagement can affect CB perpetration, whilst guilt and shame acknowledgment is often used in anti-bullying strategies. In-spite of the indications that guilt could be an important factor for CB involvement, still it appears to be neglected; thus, the current study attempts to shed some light on the possible effect that, guilt may have on CB involvement.

### **15.8. Morality and CB**

Low morality or otherwise high moral disengagement and CB perpetration appeared associated (Perren & Gutzwiller-Helfenfinger, 2012; Sticca, Ruggieri, Alsaker & Perren, 2013). For example, Menesini et al. (2013) reported that immoral behaviours predict CB, while Robson and Witenberg (2013) concluded that moral disengagement and the specific practices of diffusion of responsibility and attribution of blame predict CB. Finally, it was commonly advised (Talwar, Gomez-Garibello & Shariff, 2014; Harrison, 2015) that research on CB and morality, must be further explored. Taking in account that there are only a handful of projects that have

examined morality in relation to CB, it was decided that more focus is necessary. Therefore, morality is examined in detail, amongst the other factors, included in this chapter. .

### **15.9. Coping skills/minimisation strategy and CB**

Like with other factors, this particular factor has been majorly neglected by previous research, particularly in relation to CB. Only one article was identified during the literature review; and the general finding was that CB victims commonly use reactive coping, preventive coping and thinking that there is no way to prevent CB (Parris, Varjas, Meyers & Cutts, 2012; 2011). In terms of reactive techniques, the authors reported four coping strategies: avoidance, acceptance, justification, and seeking social support. The first one is for when students try to avoid the perpetrator. The second involves acknowledging CB as a part of life, usually when students believe that CB is going to occur regardless of actions taken, or in other words attempting to minimise the event. The third one involves evaluating CB and determining reasons why CB should not bother the student. Finally, the fourth involves approaching another person, such as other students, parents, or police, to obtain advice that would help stop a CB incident; however, this could either resolve the problem or escalate it. Taking into account the limited research on this particular coping strategy, it is deemed necessary to explore the potential factor and cover a research gap.

### **15.10. Personality and Behavioural Factors – Related Hypotheses**

1. Previous literature is contradictory about the effect of empathy on CB; therefore, no specific assumption is formulated.

2. Low self-esteem could function as a risk factor for CB victimisation; no assumptions were formulated for perpetration due to lack of direction from previous studies.
3. Aggression and its sub-aspects could function as risk factors for CB.
4. Anger could function as a risk factor for CB perpetration; no assumptions were formulated for perpetration due to lack of direction from previous studies.
5. Low impulsivity could function as a function risk factor for CB victimisation; no assumption was formulated for CB perpetration due to lack of a clear direction from previous literature.
6. Low self-control could function as a risk factor for CB perpetration; no assumption was formulated for CB victimisation due to lack of a clear direction from previous literature.
7. Due to the limited literature on guilt, no specific assumptions were formulated, and the analysis is functioning more as exploration rather than testing.
8. Morality plays a role in CB perpetration; no assumption was formulated for CB victimisation due to lack of a clear direction from previous literature.
9. Minimisation has been majorly neglected by previous literature, thus no direction was provided to allow for a direction and set clear expectations from the analysis.

### **15.11. Results**

***Inferential Statistics:*** All independent variables and their subscales were tested with correlation analysis with CB victimisation intensity (see Figure 15.11.1 in appendix B) and perpetration intensity.

*Empathy and CB Victimisation-Perpetration Intensity:* The correlation analysis for CB victimisation intensity (see Figure 15.11.3 in appendix B) showed that significant were the relationships with Responsive Crying ( $r_p = 0.14, p = .004$ ;  $r_s = 0.14, p = .004$ ), Suffering ( $r_s = 0.10, p = .048$ ), Feel for Others ( $r_s = 0.13, p = .007$ ) and General Empathy Score ( $r_s = 0.10, p = .036$ ) (see Table 15.11.1 and 15.11.2). No significant results were shown for CB perpetration intensity.

Table 15.11.1. Pearson Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and CB Victimisation intensity.

Variable	1	2	3	4	5	6	7	8	9
1. Empathy total score	-								
2. Suffering	0.83	-							
3. Positive Sharing	0.74	0.61	-						
4. Responsive Crying	0.65	0.40	0.25	-					
5. Emotional Attention	0.62	0.44	0.32	0.38	-				
6. Feel for Others	0.80	0.54	0.48	0.52	0.43	-			
7. Emotional Contagion	0.51	0.30	0.50	0.16	0.19	0.42	-		
8. Empathy mean score	0.97	0.73	0.70	0.71	0.63	0.81	0.61	-	
9. CB Victimisation intensity	0.06	0.03	-0.05	0.14	0.04	0.08	-0.01	0.07	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 15.11.2. Spearman Correlation Matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and CB Victimisation intensity.

Variable	1	2	3	4	5	6	7	8	9
1. Empathy total score	-								
2. Suffering	0.80	-							
3. Positive Sharing	0.71	0.57	-						
4. Responsive Crying	0.65	0.38	0.23	-					
5. Emotional Attention	0.60	0.39	0.29	0.37	-				
6. Feel for Others	0.77	0.51	0.44	0.50	0.39	-			
7. Emotional Contagion	0.47	0.23	0.49	0.15	0.17	0.38	-		
8. Empathy mean score	0.97	0.68	0.66	0.72	0.61	0.78	0.57	-	
9. CB Victimisation intensity	0.12	0.10	-0.00	0.14	0.07	0.13	0.01	0.10	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Self-esteem and CB Victimisation-Perpetration Intensity:* There was a significant negative moderate correlation between self-esteem and CB victimisation intensity ( $r_p = -0.33, p < .001$ ;  $r_s = -0.34, p < .001$ ). No significant relationship was found for CB perpetration intensity.

*Aggression and CB Victimisation-Perpetration Intensity:* The correlation analysis for CB victimisation intensity (see Figure 15.11.4 in appendix B) showed that significant relationships occur with Physical Aggression ( $r_p = 0.17, p < .001$ ;  $r_s = 0.18, p < .001$ ), Verbal Aggression ( $r_p = 0.17, p < .001$ ;  $r_s = 0.18, p < .001$ ), Hostility ( $r_p = 0.34, p < .001$ ;  $r_s = 0.36, p < .001$ ) and Aggression Total score ( $r_p = 0.26, p < .001$ ;  $r_s = 0.28, p < .001$ ). For CB perpetration intensity (Figure 15.11.7 in appendix B), significant relationships were shown with Verbal Aggression ( $r_s = 0.10, p = .048$ ) and Aggression Total Score ( $r_s = 0.10, p = .049$ ) (see Tables 15.11.3 and 15.11.4).

Table 15.11.3. Pearson Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Victimisation intensity.

Variable	1	2	3	4	5	6
1. Anger	-					
2. Physical Aggression	0.65	-				
3. Verbal Aggression	0.66	0.61	-			
4. Hostility	0.47	0.34	0.42	-		
5. Aggression	0.87	0.85	0.80	0.68	-	
6. CB Victimisation intensity	0.17	0.17	0.17	0.34	0.26	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 15.11.4. Spearman Correlation Matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Perpetration intensity.

Variable	1	2	3	4	5	6
1. Anger	-					
2. Physical Aggression	0.63	-				
3. Verbal Aggression	0.65	0.60	-			
4. Hostility	0.45	0.32	0.39	-		
5. Aggression	0.87	0.83	0.78	0.66	-	
6. CB Perpetration Total	0.05	0.08	0.10	0.07	0.10	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Anger and CB Victimisation-Perpetration Intensity:* Anger appeared significantly related only to CB victimisation intensity ( $r_p = 0.17, p < .001$ ;  $r_s = 0.20, p < .001$ ).

*Impulsivity and CB Victimisation-Perpetration Intensity:* There was a significant small positive correlation between Impulsivity and CB victimisation intensity ( $r_p = 0.18, p < .001$ ;  $r_s = 0.22, p < .001$ ) only; no such result were shown for CB perpetration intensity.

*Self Control and CB Victimisation-Perpetration Intensity:* There was a significant small negative correlation between Self-Control and CB victimisation intensity ( $r_p = -0.10, p = .041; r_s = -0.12, p = .016$ ); no such results were shown for CB perpetration intensity.

*Guilt and CB Victimisation-Perpetration Intensity:* In relation to CB victimisation intensity (see Figure 15.11.2 in appendix B), significant were the relationships with GNBE ( $r_p = -0.15, p = .002; r_s = -0.19, p < .001$ ) and GSW ( $r_p = 0.20, p < .001; r_s = 0.17, p < .001$ ). Whereas, for CB perpetration intensity (see Figure 15.11.6 in appendix B), significant were the relationships with GNBE ( $r_p = -0.11, p = .022; r_s = -0.13, p = .008$ ), GR ( $r_p = -0.11, p = .028; r_s = -0.11, p = .022$ ), GNSE ( $r_s = -0.15, p = .003$ ), and Guilt as a total ( $r_p = -0.14, p = .004; r_s = -0.16, p = .002$ ) (see Tables 15.11.5 and 15.11.6 below).

Table 15.11.5. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Victimization intensity.

Variable	1	2	3	4	5	6
1. GNBE	-					
2. GR	0.57	-				
3. GNSE	0.54	0.51	-			
4. GSW	0.06	0.07	0.19	-		
5. Guilt	0.79	0.75	0.80	0.47	-	
6. CB Victimization intensity	-0.15	-0.06	0.04	0.20	0.00	-

*Note.* The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

Table 15.11.6. Pearson Correlation Matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Perpetration intensity.

Variable	1	2	3	4	5	6
1. GNBE	-					
2. GR	0.57	-				
3. GNSE	0.54	0.51	-			
4. GSW	0.06	0.07	0.19	-		
5. Guilt	0.79	0.75	0.80	0.47	-	
6. CB Perpetration intensity	-0.11	-0.11	-0.09	-0.08	-0.14	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Morality and CB Victimization-Perpetration Intensity* In terms of Morality and the related subscales, for CB victimisation intensity (see Figure 15.11.5 in appendix B), significant associations were found only with Progressivism ( $r_s = 0.12, p = .016$ ) (see Table 15.11.7 below); no significant associations were shown with CB perpetration intensity.

Table 15.11.7. Spearman Correlation Matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality, and CB Victimization intensity.

Variable	1	2	3	4	5	6	7	8
1. Harm	-							
2. Fairness	0.53	-						
3. In-group	0.29	0.22	-					
4. Authority	0.15	0.09	0.50	-				
5. Purity	0.19	0.21	0.42	0.49	-			
6. Progressivism	0.48	0.47	-0.41	-0.56	-0.49	-		
7. Morality	0.76	0.70	0.63	0.53	0.58	0.07	-	
8. CB Victimization intensity	0.05	0.09	-0.06	0.01	-0.08	0.12	0.02	-

Note. The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

*Minimisation and SB Victimation-Perpetration Intensity:* There was a significant small negative correlation between minimisation and CB victimisation intensity only ( $r_p = -0.22, p < .001$ ;  $r_s = -0.22, p < .001$ ) (see Table 15.11.8 below); no such result were shown for CB perpetration intensity.

Table 15.11.8. Pearson Correlation Matrix among Self-esteem, Self-reported impulsivity, Self-control, Minimisation, and CB Victimation intensity.

Variable	1	2	3	4	5
1. Self-esteem	-				
2. Self-reported impulsivity	-0.24	-			
3. Self-control	0.05	-0.48	-		
4. Minimisation	0.29	0.03	0.02	-	
5. CB Victimation intensity	-0.33	0.18	-0.10	-0.22	-

*Note.* The critical values are 0.10, 0.13, and 0.16 for significance levels .05, .01, and .001 respectively.

To further explore whether the significantly correlated factors to CB victimisation intensity and perpetration intensity have an effect on the dependent variables, a series of linear regression models were conducted.

*Regression Model for Main Personality/Behavioural Factors and CB Victimation Intensity:* Starting with a linear regression analysis, assessing whether self-esteem, impulsivity, self-control, minimisation, general empathy score and aggression total score, significantly predicted CB victimisation intensity; assumptions were taken into account (see Figure 15.11.8, Figure 15.11.9, Table 15.11.9 and Figure 15.11.10 in appendix B). The results of the linear regression model were significant ( $F(6,401) = 15.38, p < .001, R^2 = 0.19$ ), indicating that approximately 19% of the variance in CB victimisation intensity is explainable by self-esteem, impulsivity, self-control, minimisation, general empathy score, and aggression total score. Particularly, Self-esteem significantly predicted CB victimisation intensity ( $B = -0.21, t(401) = -4.64, p < .001$ ). Showing that, on average, a one-unit increase of Self-esteem will

decrease the value of CB victimisation intensity by 0.21 units. Self-control significantly predicted CB victimisation intensity ( $B = 0.27$ ,  $t(401) = 2.40$ ,  $p = .017$ ). Indicating that, on average, a one-unit increase of Self-control will increase the value of CB victimisation intensity by 0.27 units. Moreover, Minimisation significantly predicted CB victimisation intensity ( $B = -0.28$ ,  $t(401) = -2.26$ ,  $p = .024$ ); on average, a one-unit increase of Minimisation will decrease the value of CB victimisation intensity by 0.28 units. General empathy score also significantly predicted CB victimisation intensity ( $B = 1.07$ ,  $t(401) = 2.17$ ,  $p = .030$ ); on average, a one-unit increase of general empathy score will increase the value of CB victimisation intensity by 1.07 units. Finally, Aggression significantly predicted CB victimisation intensity ( $B = 0.08$ ,  $t(401) = 4.69$ ,  $p < .001$ ); on average, a one-unit increase of aggression will increase the value of CB victimisation intensity by 0.08 units (see Table 15.11.10).

Table 15.11.10. Results for Linear Regression with Self-esteem, Self reported impulsivity, Self-control, Minimisation, General Empathy Score, and Aggression Total Score predicting CB victimisation intensity.

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	-6.23	4.33	[-14.74, 2.28]	0.00	-1.44	.151
Self-esteem	-0.21	0.05	[-0.30, -0.12]	-0.23	-4.64	< .001
Self reported impulsivity	0.13	0.10	[-0.07, 0.32]	0.07	1.29	.197
Self-control	0.27	0.11	[0.05, 0.49]	0.16	2.40	.017
Minimisation	-0.28	0.13	[-0.53, -0.04]	-0.11	-2.26	.024
General Empathy Score	1.07	0.49	[0.10, 2.03]	0.10	2.17	.030
Aggression Total Score	0.08	0.02	[0.05, 0.12]	0.32	4.69	< .001

Note. Results:  $F(6,401) = 15.38$ ,  $p < .001$ ,  $R^2 = 0.19$   
 Unstandardized Regression Equation: CB victimisation intensity = -6.23 - 0.21\*Self-esteem + 0.13\*Self reported impulsivity + 0.27\*Self-control - 0.28\*Minimisation + 1.07\*General Empathy Score + 0.08\*Aggression Total Score.

### Regression Model for Personality/Behavioural Sub-factors and CB

*Victimisation Intensity:* Next, a linear regression analysis was conducted to assess whether GNBE, GSW, suffering, responsive crying, feel for others, anger, physical aggression, verbal aggression, hostility, and progressivism significantly predicted CB victimisation intensity; assumptions were taken into account (see Figure 15.11.11,

Figure 15.11.12, Table 15.11.11 and Figure 15.11.13 in appendix B). The results of the linear regression model were significant ( $F(10,397) = 8.88, p < .001, R^2 = 0.18$ ), indicating that approximately 18% of the variance in CB victimisation intensity is explainable by GNBE, GSW, suffering, responsive crying, feel for others, anger, physical aggression, verbal aggression, hostility and progressivism. Specifically, GNBE significantly predicted CB victimisation intensity ( $B = -0.15, t(397) = -2.97, p = .003$ ); on average, a one-unit increase of GNBE will decrease the value of CB victimisation intensity by 0.15 units. GSW also significantly predicted CB victimisation intensity ( $B = 0.13, t(397) = 2.47, p = .014$ ); that on average, a one-unit increase of GSW will increase the value of CB victimisation intensity by 0.13 units. Moreover, responsive crying significantly predicted CB victimisation intensity ( $B = 0.73, t(397) = 2.71, p = .007$ ); on average, a one-unit increase of responsive crying will increase the value of CB victimisation intensity by 0.73 units. Finally, hostility significantly predicted CB victimisation intensity ( $B = 0.24, t(397) = 5.10, p < .001$ ); on average, a one-unit increase of hostility will increase the value of CB victimisation intensity by 0.24 units (see Table 15.11.12).

Table 15.11.12. Results for Linear Regression with GNBE, GSW, Suffering, Responsive Crying, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, and Progressivism predicting CB victimisation intensity.

Variable	<i>B</i>	<i>SE</i>	95% CI	$\beta$	<i>t</i>	<i>p</i>
(Intercept)	-4.41	2.46	[-9.25, 0.44]	0.00	-1.79	.075
GNBE	-0.15	0.05	[-0.26, -0.05]	-0.16	-2.97	.003
GSW	0.13	0.05	[0.03, 0.24]	0.12	2.47	.014
Suffering	0.03	0.61	[-1.17, 1.22]	0.00	0.04	.967
Responsive Crying	0.73	0.27	[0.20, 1.26]	0.15	2.71	.007
Feel for Others	0.47	0.41	[-0.35, 1.28]	0.07	1.12	.263
Anger	-0.08	0.06	[-0.20, 0.03]	-0.10	-1.47	.143
Physical Aggression	0.07	0.04	[-0.02, 0.15]	0.10	1.54	.125
Verbal Aggression	0.08	0.08	[-0.09, 0.24]	0.06	0.93	.354
Hostility	0.24	0.05	[0.15, 0.33]	0.28	5.10	< .001
Progressivism	0.32	0.34	[-0.34, 0.99]	0.05	0.95	.340

Note. Results:  $F(10,397) = 8.88, p < .001, R^2 = 0.18$

### *Regression Model for Main Personality/Behavioural Factors and CB*

*Perpetration Intensity:* Likewise, a linear regression analysis was conducted to assess whether guilt and aggression total score significantly predicted CB perpetration intensity; assumptions were once more considered (see Figure 15.11.14, Figure 15.11.15, Table 15.11.13 and Figure 15.11.16 in appendix B). The results of the linear regression model were significant ( $F(2,405) = 4.37, p = .013, R^2 = 0.02$ ), indicating that approximately 2% of the variance in CB perpetration intensity is explainable by guilt and aggression. However, only Guilt significantly predicted CB perpetration intensity ( $B = -0.10, t(405) = -2.62, p = .009$ ); on average, a one-unit increase of Guilt will decrease the value of CB perpetration intensity by 0.10 units (see Table 15.11.14).

Table 15.11.14. Results for Linear Regression with Guilt and Aggression Total Score predicting CB perpetration intensity.

Variable	B	SE	95% CI	$\beta$	t	p
(Intercept)	3.45	0.99	[1.50, 5.40]	0.00	3.48	<.001
Guilt	-0.10	0.04	[-0.17, -0.02]	-0.13	-2.62	.009
Aggression Total Score	0.00	0.01	[-0.01, 0.02]	0.03	0.60	.546

*Note.* Results:  $F(2,405) = 4.37, p = .013, R^2 = 0.02$   
Unstandardized Regression Equation: CB perpetration intensity = 3.45 - 0.10\*Guilt + 0.00\*Aggression Total Score.

### *Regression Model for Personality/Behavioural Sub-factors and CB*

*Perpetration Intensity:* Lastly, A linear regression analysis was conducted to assess whether GNBE, GR, GNSE, and verbal aggression significantly predicted CB perpetration intensity; however, the model resulted in non-significant findings ( $F(4,403) = 1.94, p = .103, R^2 = 0.02$ ).

## **15.12. Discussion**

As in chapter seven, chapter 15 explored personality and behavioural factors in relation to CB victimisation and perpetration intensity. Once more, intensity was only considered as it implies occurrence. The analysis was achieved by measuring

participants empathy, self-esteem, aggression, anger, impulsivity, self-control, guilt, morality, coping skill/minimisation, as well as the related subscales. Pearson's correlation product moment and Spearman's correlation analysis were conducted to assess the relationships between the dependent and independent variables. The factors and their subscales that indicated a significant relationship with CB were entered into regression models in order to assess whether these factors and subcategories predict CB intensity. The results are discussed under the individual sections for consistency and clarity.

**Empathy:** Empathy was measured as a general score and as individual scores of the subscales. Those being: Suffering (e.g., "The suffering of others deeply disturbs me"), Positive Sharing (e.g., "Seeing other people smile makes me smile"), Responsive Crying (e.g., "I don't cry easily"), Emotional Attention (e.g., "I don't give others' feelings much thought"), Feel for Others (e.g., "I feel other people's pain"), and Emotional Contagion (e.g., "When I'm with other people who are laughing I join in").

The analysis showed that most of the sub-factors and empathy in general is associated to CB victimisation intensity, but not CB perpetration intensity. Starting with empathy as a whole, which is positively associated with CB victimisation intensity, but also significantly predicts CB victimisation intensity, suggesting that higher levels of empathy function as risk factor for CB victimisation intensity. In terms of the subscales, the findings showed that responsive crying is significantly and positively associated with CB victimisation intensity and a significant risk factor; in other words, individuals who perhaps feel deeply for others, to the point that might cry for the pain of others could face more intense CB victimisation. Similarly, suffering and feel for others are significantly and positively associated with CB

victimisation intensity, although, these two sub-factors are not significant predictors for CB victimisation. In terms of CB perpetration intensity, there were no significant results; therefore, disagreeing with Brewer and Kerslake (2015; Del Rey, et al., 2016) who supported that empathy functions as a significant predictor for CB perpetration, with lower empathy increasing CB perpetration.

The findings support previous research (Ang & Goh, 2010; Topcu & Erdur-Baker, 2012) that found significant associations between empathy and CB involvement; however, this project would only support this association in terms of victimisation, while it may be possible that the sample size played a role. Nevertheless, the findings imply that if an individual is highly empathetic then he/she will suffer more intense levels of CB victimisation. By no means, this is not a suggestion for victims to become less empathetic; instead, it is advice for parents and teachers to try and help students and young individuals in becoming more confident and resilient. That way, victims might be able and handle such negative experiences when they occur.

**Self-esteem:** Self-esteem was the second factor that was explored; the results showed that higher self-esteem decreases CB victimisation decreases, both in terms of association and prediction. Therefore, accepting the expectation set in this chapter for this particular factor. In terms of perpetration, no such effect was found. The findings disagree with Robson and Witenberg (2013) that supported that there is no significant association between self-esteem and CB and agree with Cénat, et al., (2014) who supported the opposite from the latter authors. The findings also supplement Brewer and Kerslake (2015) who reported self-esteem as a significant predictor for CB victimisation. Therefore, parents, educators and those that develop anti-bullying

projects should train individuals with low self-esteem to become more confident and more resilient.

**Aggression:** Aggression was measured by taking into account the total aggression score and the subscales; those being, anger, which is further discussed in the next section, physical aggression, verbal aggression and hostility. The correlation analysis showed that physical aggression, verbal aggression, hostility and aggression as a total, were significantly positively correlated with CB victimisation. Whereas, verbal aggression and aggression as a whole are significantly and positively correlated with CB perpetration intensity. In addition, increased aggression and hostility function as significant risk factors for CB victimisation intensity, but not perpetration intensity. Therefore, appreciating the insightful findings regarding victimisation and partially confirming the expectations, but rejecting the expectation that aggression can function as a risk factor for CB perpetration. However, it may be possible that the sample size weakened the results, thus suggesting further examination with a larger sample.

Taking into account previous literature, the results were not as surprising, since it has been shown (Ang et al., 2011; Burton, Florell & Wygant, 2013) that aggression has an impact on CB behaviour, although, such impact was mostly referred to perpetration. Moreover, the findings disagree with Ang et al., (2014) who found that proactive aggression is positively associated to CB, while reactive aggression and CB are not associated. The present findings showed that all of the subscales and aggression are related to CB victimisation intensity. Perhaps, implying that reactive aggression due to victimisation incidents increase the possibility of victims suffering repetitive and more intense victimisation. Additionally, both aggression and hostility predicted CB victimisation intensity. Opposing, CB

perpetration intensity was associated only with verbal aggression and aggression as a whole. Thus suggesting that proactive aggression might not influence CB perpetration intensity on a large scale; after all, no such prediction effect was found. In essence, educators, parents and anti-bullying strategy developers should focus on both victims and perpetrators when considering aggression management. Concluding, victims are advised to attempt and control their reaction when they are victimised; rather than reciprocating with perpetration, which may only lead to further escalation of the victimisation.

**Anger:** Although anger was measured as a subscale of aggression, nonetheless it is presented separately as anger is perhaps the reason that aggression is eventually acted out. The correlation indicated that higher levels of anger lead to CB victimisation intensity, but anger is not strong risk factor for perpetration or victimisation. Consequently, rejecting the expectations set for this factor and appreciating the results from the exploration. The findings somehow agree with previous studies (Ak et al., 2015) that found positive associations between anger and CB victimisation, but it is generally concluded that, possibly, victims act out their anger and reciprocate to their victimisation by perpetrating. Thus, further escalation of the incidents may occur and more intensive victimisation may follow. Furthermore, the results do not entirely agree with Lonigro, et al., (2015) when stated that anger is more common among cyber-bullies; no such results were supported in this study, but as mentioned previously, the sample size could have played a role. Concluding, victims are advised to find a healthy way to express their anger, rather than reciprocating to their victimisation with perpetration.

**Impulsivity:** Although, no predictive effect was found for impulsivity, still the factor functioned as others (Fanti, et al., 2012) have previously supported and as

expected in this study; that being, significantly and positively associated with CB victimisation only. Therefore, victims must be trained and shown how to think before they act, in order to avoid escalation of their victimisation.

***Self-control:*** The next examined factor, was self-control. Results showed that, self-control was significantly negatively correlated with CB victimisation only. Therefore, validating that it is highly important for victims to control their impulsivity and think before they act or react to their CB victimisation. Surprisingly, self-control also functions as risk factor for CB victimisation only. Thus, rejecting the set expectations, but agreeing with Li, et al. (2016) who showed that self-control is a significant predictor for CB involvement. However, there were differences with other studies (You & Lim, 2016; Vazsonyi et al., 2012) that highlighted self-control as predictor mainly for CB perpetration. No such findings were supported in this study. Concluding this section, it is advised that victims are in need of self-control education and training, in order to be able to deal with possible victimisation incidents. If such training is available at school or at home, then youngsters might be in a position to reserve their impulsive and immature actions when facing online attacks; thus preventing escalation and more intense CB victimisation. Finally, it is recognised that increased self-control appears to be a risk factor for CB victimisation, suggesting that victims should defend themselves and stand up to the CB perpetrator but not reciprocate with CB perpetration, as that might result in repetition and escalation of the incidents.

***Guilt:*** Both guilt and its sub-scales were explored in relation to CB, those being: guilt-negative-behaviour-evaluation (GNBE), guilt-repair (GR), shame-negative-self-evaluation (GNSE), and shame-withdraw (GSW). From the subscales, the correlation analysis showed that guilt-negative-behaviour-evaluation and shame-

withdraw are positively associated with CB victimisation intensity. Whereas, increased guilt as a total, guilt-negative-behaviour-evaluation, shame-negative-self-evaluation and guilt-repair decrease CB perpetration intensity.

Lastly, the regression analysis found that guilt-negative-behaviour-evaluation is a significant protective factor for CB victimisation intensity; whereas, shame-withdraw functions as a risk factor for CB victimisation intensity. It appears that shame-withdraw might be a double standard factor, meaning that when it increases, CB victimisation intensity decreases, but the regression showed that an increase in shame-withdraw also increases CB victimisation. On the other hand, only guilt as a whole was found as a significant protective factor for CB perpetration intensity..

Such significant associations between CB and guilt had been previously discussed (Weber, Ziegele & Schnauber, 2013) and supported that an increase in guilt decreases CB (Wang, 2016). Moreover, it should be taken into account that 12% of the victims felt that their perpetrator stopped the harassment because of guilt and approximately 35% of perpetrators felt guilty for their actions and thus ceased their negative behaviour. Such results suggest that guilt must be unquestionably used in anti-bullying programs and educators must allow perpetrators to accept such emotions and praise them for making such reforms and realisations. On the other hand, parents, schools and developers of such strategies should ensure that victims do not self-blame for their victimisation, which could result in withdrawal and consequently further victimisation. Finally, the sub-aspects of guilt were associated in a negative way with CB victimisation intensity such an outcome may be confusing. However, it may be possible that victims were acting irresponsible online, and thus put themselves at risk of victimisation; as a result, when they realised their behaviour, they felt guilty. By

feeling guilty, victims may have changed such impulsive online behaviours; consequently, preventing CB victimisation.

**Morality:** The next factor that was explored was morality and its sub-aspects harm, fairness, in-group, authority, purity, and progressivism. It was expected that, morality, somehow, plays a protective role when it comes to CB perpetration; however, the expectation was rejected as there were no such significant findings. On the other hand, progressivism appeared to affect CB victimisation intensity in a negative way as it was shown that the two variables are positively associated. It could be assumed that the more one is progressive the more the chances of becoming victimised online; perhaps such individuals may appear different than the rest of the peers, thus, attracting more attention and targeted due to their social unconformity.

The findings go against previous research (Perren & Gutzwiller-Helfenfinger, 2012; Sticca, et al., 2013) that suggested low morality being associated with CB perpetration. However, various mediators and factors may have played a role in the non-significance of results, as well as the limited sample size. The only way to address this assumption would be with a future project that would replicate this part of the present study, with a larger sample and a more focused on this subject questionnaire. Concluding this section, it should be noted that some of the victims stated that victimisation stopped when they changed the reasons that they were targeted and victimised for; such reasons could have included the differences with their peers. However, this is not to be taken as advice to victims to become less progressive in order to protect themselves from CB. Instead, adults should teach youngsters to respect and accept others for who they are.

**Coping skills/minimisation strategy:** Last, the coping strategy of minimisation was studied in relation to CB. The findings suggest that, as

minimisation increases CB victimisation tends to decrease. Perhaps, implying that, CB victims should not take all forms of CB seriously. Or, victims should assess whether an incident is worthy and serious enough to deserve attention or interaction with the perpetrator. Moreover, minimisation functions as significant protective factor for CB victimisation intensity. Thus, further suggesting that victims should seriously consider whether some incidents worth interaction with the perpetrator. It should be clarified here that this is not to be taken as a suggestion to disregard serious attacks such impersonation or dissemination of personal information. Besides, research (Parris, et al., 2012; 2011) has shown that many individuals cope with CB by acknowledging it as a part of life, which ultimately helped them to focus on the more positive aspects of life.

### **15.13. Conclusion**

Chapter 15 examined and explored personality and behavioural factors in relation to CB involvement. As expected, there were found complicated associations and effects both in terms of victimisation and perpetration. In summary, it was shown that high empathy and responsive crying function as risk factors for intense CB victimisation, while suffering and feel for others increase CB victimisation intensity, but are not considered significant predictors. Similarly, increased aggression and hostility function as significant risk factors for CB victimisation intensity, while physical aggression, anger and verbal aggression, are positively correlated with CB victimisation, but not significant predictors. The same resulted for impulsivity, accepting only a positive association with CB victimisation intensity, without any predictive effect. In terms of guilt, the correlation analysis showed that guilt-negative-behaviour-evaluation and shame-withdraw are positively associated with CB victimisation intensity, but only guilt-negative-behaviour-evaluation is a significant

protective factor for CB victimisation intensity; whereas, shame-withdraw functions as a risk factor for CB victimisation intensity. On the other hand, self-esteem functions as a protective factor for CB victimisation intensity, and so does minimisation. On the contrary, self-control appears significantly negatively correlated with CB victimisation, but also seems to be a risk factor for CB victimisation intensity; perhaps, the sample size affected the results, while the effect size of the correlation was small, and the results could be due to chance. Finally, progressivism appears to affect CB victimisation intensity in a negative way, but is not considered a significant factor.

As for CB perpetration intensity, verbal aggression and aggression as a whole are significantly and positively correlated with CB perpetration intensity, but could not be proven as significant predictors. Whereas, increased guilt as a total, guilt-negative-behaviour-evaluation, shame-negative-self-evaluation and guilt-repair decrease CB perpetration intensity, with only guilt as a total proven as a significant protective factor for CB perpetration intensity. Concluding, all the aforementioned associations and effects can be quite overwhelming when attempting to comprehend. Which is why the next chapter, summarises all the chapters from part three, before proceeding to an exploration of whether any possible anti-bullying education this sample has received, played a role in the current prevalence rates.

## ***Chapter 16 - General Conclusion of Part 3***

Part three focused on CB and the numerous factors that have been previously considered when parents, educators, governments, authorities and researchers attempted to find the ways to protect victims and perpetrators from the harsh consequences of CB involvement. Starting with chapter nine that, explored the related variables to online access and social media use.

***Internet Access and Social Media Use:*** The findings showed that the majority of participants use multiple electronic devices, such as mobile phones, laptops and tablets, all with access to the Internet. Previous research (Mishna, et al., 2009) reported similar results and signified how easy it is nowadays to gain online access. Moreover, this sample's Internet users spend an average of 6.40 hours per day online. Some participants could also be classified as Internet addicts as they reported 24 hours per-day Internet engagement; therefore, being at more risk of CB involvement (Mark & Ratliffe, 2011; Athanasiades, et al., 2016). Nonetheless, despite the indications from other studies, this project did not find any significant associations between the time that participants spent online and CB involvement. Perhaps the results were mediated by participants' average age (20 years-old), thus exhibiting higher self-control in terms of cyberspace use, despite the fact that participants might have answered the survey questions retrospectively. Furthermore, online violence exposure was examined and the findings showed that only 1/3 of the participants' access online sites and platforms that exhibit violent content. Despite the small portion of participants that were exposed to such content, still it was revealed that, those that expose themselves to violent content are at greater risk for CB perpetrating. Possibly, such individuals are angered by the content and externalise their feelings online, or repetitive exposure to violent content normalises violent behaviour. Next,

parental monitoring was explored and it was found that, the majority of parents had not set rules in terms of online time allowance, while there were no risky sites restrictions for more than half of the sample. Such results suggest that youngsters with no rules are at higher risk of CB involvement (Khurana, et al., 2015). Additionally, the majority of the handful of participants that were restricted from such sites did not follow the rules. Suggesting that setting rules may be insufficient, if there is not communication between parents and youngsters and constructive discussions on the reasons behind the restrictions. Next, in chapter nine, there was found an association between CB victimisation and onset age of social media use. Proposing, that the later youngsters start using the social media, the lower the CB involvement. Reasonably, since older individuals are more mature and able for wiser decisions. Lastly, it was revealed that Facebook prevails in terms of platform preference and use, and in the next chapters it will be shown whether Facebook has anything to do with the risk for CB involvement.

***CB Victimisation:*** The next chapter focused on CB victimisation and related aspects. The main findings showed that 37.26% of participants were sort of CB victimised, meaning that their victimisation was not perceived as severe, and definitely were CB victimised at least once in their life; with previous studies (Modecki, et al., 2014) presenting similar rates. Additionally, the majority of victims were victimised by their peers, and particularly from the same class at school. The latter, further supports that there is definitely an overlap between SB and CB, as the harassment starts at school and escalates online or the opposite. Moreover, it shows that there is no power imbalance online, at least not in terms of age. Besides, victims stated that the most prevalent reason they were CB victimised was arguments in real life settings, with some of the victims revealing that the same perpetrator had

victimised them in other settings; still and the majority of the victims perceived that the social media played a crucial role in their victimisation. In the previous chapter it was shown that Facebook prevails in comparison to other platforms, and in chapter 10 it was confirmed that Facebook was the most prevalent platform where participants experienced victimisation; as Saridakis, et al. (2016) had previously supported. This project further emphasises that, Facebook developers need to find better ways to protect the platform users against such harassment. In terms of the most prevalent means of CB victimisation, it was found that spreading rumours prevailed and followed by threats. Perhaps some parents and Facebook developers do not consider these means severe enough for intervention. However, rumours could have an irreversible effect on the victim's social status and the threats could potentially induce a sense of fear; therefore, increasing the risk of stress and anxiety. When victims were asked how their victimisation stopped, the majority said that they stood up to the perpetrator. Although, unfortunately it seems that the majority of victims endured such difficult periods without any support. Finally, the perception that victimisation would still occur regardless of the social media predicted victimisation; suggesting that pessimism and lack of motivation might increase the risk of CB victimisation. Such findings indicate that, victims are in need for motivation and encouragement during such difficult times. Finally, online violence exposure predicted victimisation intensity; or in other words, the more victims expose themselves to online violence the higher the likelihood of experiencing more intense victimisation. Thus, confirming that online violence exposure could increase hostility, and therefore some individuals provoke perpetrators and trigger CB incidents.

***CB Perpetration:*** Chapter 11 explored CB perpetration prevalence rates, frequency, means, and other related aspects. From the overall sample, only 7.11%

admitted online perpetration, with the majority CB victimising others just one time. With these results, the repetition criterion of CB definition is rejected, inevitably signifying the limitations of CB terminology and the need for an aggregated CB definition. Next, it was found that perpetrators CB victimised mostly girls in the same class, further supporting the overlap between SB and CB and removing the power imbalance between victims and perpetrators in terms of age. As with CB victimisation, likewise in CB perpetration, more than half of the perpetrators used Facebook to victimise others; therefore, further supporting the need for stricter Facebook CB protection tools and monitoring from parents (Carter, 2013). These perpetrators mostly preferred to spread rumours online about the victim and excluding them from various groups. A very important finding was the consistency between victims and perpetrators, stating that the attacks occurred because of arguments in other settings. Although, more than half of the perpetrators supported that, they would attack their victim even if the social media did not exist. Consequently, once more suggesting that CB may be a continuum of SB. Nonetheless, the misconception that perpetrators are just evil individuals was rejected, as the majority stopped their behaviour because of guilt and empathy. Recommending that perpetrators could change their behaviour, if they are shown the results of their actions and are educated about the CB consequences. The latter is further supported, as the majority of the perpetrators that received guidance, support and advice, stopped the perpetration.

***CB Role Switch:*** As in SB involvement, likewise in CB, the third aspect to explore was the role switch from CB victim to CB perpetrator or the opposite. Keeping in mind that 29 participants sort of and unquestionably admitted CB perpetration, from the role switch examination, it was found that, 35 perpetrators admitted switching from perpetrator to victim; indicating that six participants had not

admitted perpetration in the previous section of the questionnaire. If so, then it can be inferred that 100% of the CB perpetrators in this study had also been CB victimised, inevitably 100% of perpetrators role switched to victim. Likewise, 64 individuals out of 152 victims role-switched to CB perpetrator; suggesting that approximately half of the pure CB victim group switched to CB perpetrator. The rates indicate that, although, the victims are more than the perpetrators, nonetheless, perpetrators are more easily victimised than victims becoming perpetrators. This can be very confusing as the rates also imply that victims may be more motivated to get revenge for their victimisation. This latter assumption can only be validated with further research focused more on this area. Moreover, the overall role switch rate was approximately 53% of the CB involved sample and approximately 24% of the overall sample; which further supports previous projects (Mishna, et al., 2012). Concluding this section, CB perpetration and CB victimisation appeared related, while involvement in CB either as a victim or a perpetrator was proven to be a significant risk factor for more intense victimisation and perpetration; such results had been previously supported (Craig & Pepler, 1995). Consequently, determining that CB victimisation and CB perpetration are connected while one leads to the other, and strengthening the indications for the overlap of SB and CB. Therefore, advising that bullying should be tackled as an aggregated form of wrong behaviour, rather than two different types of harassment. Additionally, perpetrators should be educated about the consequences of their actions on themselves and the victims, and victims should not reciprocate with perpetration, but should take action to protect themselves.

***Background Factors and CB:*** After the role switch, the next three chapters looked into risk and preventive factors related to bullying. Starting with the most rigid factors: age, gender, race/ethnicity, religion, sexual orientation, disabilities, mental

health, and physical health. From the aforementioned factors only age, gender and religion had a significant effect in CB victimisation. The main findings showed that CB victimisation decreases as age increases; this result contradicted previous findings (Robson & Witenberg, 2013). Nonetheless, a possible explanation would be the maturity that these individuals gain as they get older, resilience and even knowledge on how to deal with online risky situations. Perhaps, a role played the fact that age was reported for the time the survey was completed, while CB experiences might have been reported retrospectively. It was also shown that males are less risk for CB victimisation and intense CB victimisation, in comparison to females. These findings agree with previous research (Li, 2006) and further support that young girls in general should be more alert when interacting online. Furthermore, as in SB, likewise in CB, it was found that atheists are at more risk of CB victimisation, than religious individuals. As it was mentioned previously, it may be possible that religious groups offer extra support or advice, or may be more conservative and therefore, at less risk of engaging in behaviours that increase the likelihood of participating in CB incidents. Additionally, it was found that the Muslim religious group is most protected from intense CB victimisation. It may be that Muslim communities offer more advice and support or perpetrators may think twice before victimising a Muslim individual, due to fear of being perceived as racists. Lastly, for victimisation intensity it was also found that Middle Eastern and White individuals are at less risk of experiencing more intense victimisation in comparison to Asian participants. Consequently, recommending the Asian groups as more vulnerable for CB victimisation. Lastly, none of the rigid factors showed any significant effects for CB perpetration occurrence or CB perpetration intensity. Regardless, these variables need further

exploration with a larger sample and/or a more focused sample on school age individuals.

***Family/Friend Related Factors:*** The next examined factors were related to parents, siblings and friends. In more detail, the variables were: friendly relationship with parents, parenting style, parental communication, parents being aware of what is going on in their children's lives, parental support, parental engagement and whether parents were aware if their children skipped school, whether participants have any siblings, sibling relationship, sibling support, sibling teasing, whether parents were aware of the sibling teasing and how parents reacted to sibling teasing, whether participants have any friends, friends being aware of what is going on in participants' lives, friends' support and whether parents knew their children's friends. From the parent related aspects, none of the variables showed any relationship to CB victimisation occurrence or perpetration occurrence. Perhaps, suggesting that parents' behaviour and actions have no effect on their children's CB involvement. On the other hand sibling teasing appeared related to CB victimisation occurrence and CB victimisation intensity appeared significantly different between the levels of sibling teasing. In addition, sibling teasing was found to be a significant risk factor for CB victimisation. On the contrary, parental reaction to sibling teasing appeared related to perpetration occurrence, whilst there were significant differences between the levels of sibling relationship and CB perpetration intensity. Although, none of the variables significantly predicted perpetration, nonetheless, it is advised, that further exploration with a future project is required to confirm, mainly due to the CB perpetrator limited sample size. Lastly, from the related to friends variables, only whether and how well parents know their children's friends appeared related to CB victimisation. While results from the regression showed that the more parents know who their children's

friends are, the less the chances of their children being CB victimised. The findings show the importance of parental involvement in children's lives and the necessity of parents to familiarise themselves with their children's peers. On the other hand, CB perpetration occurrence appeared related to friends' knowing what is going on in perpetrators lives and friends' support. Once more, indicating that perpetrators also need support, perhaps, as much as victims do. Nonetheless, none of the variables predicted CB perpetration or perpetration intensity. Implying that friends do play a role in perpetrators' lives, but not to the degree that may affect them majorly.

***Personality and Behavioural Factors:*** Finally, the last examined variables were related to participants' personality characteristics and behavioural aspects, those being: empathy, self-esteem, aggression, anger, impulsivity, self-control, guilt, morality, coping skill/minimisation, as well as the related subscales. Starting with empathy, results showed that most of the sub-factors and empathy in total are associated to CB victimisation intensity, but not CB perpetration intensity. It was also found that as empathy functions as a risk factor for more intense CB victimisation. Moreover, responsive crying, suffering and feel for others, are positively correlated with CB victimisation intensity. However, only responsive crying appeared as a significant predictor for CB victimisation intensity, with responsive crying increasing CB victimisation intensity. It must be noted that the findings support previous research (Ang & Goh, 2010; Topcu & Erdur-Baker, 2012) that found significant associations between empathy and CB involvement; although, this project supports the associations only in terms of victimisation. Next it was found that self-esteem functions as a predictor for CB victimisation intensity, suggesting that the higher the self-esteem the lower the intensity of CB victimisation. Others (Cénat, et al., 2014; Brewer & Kerslake, 2015) had previously supported similar findings. Following,

aggression was examined with its sub-factors. The main findings showed that as physical aggression, verbal aggression, hostility, and aggression as a total increase so does CB victimisation intensity, while in addition an increase in aggression and hostility predicts an increase in CB victimisation intensity. As for perpetration, it was shown that as verbal aggression and total aggression increase so does CB perpetration intensity, but none of the variables predicted CB perpetration intensity. Many projects (Ang et al., 2011; Burton, Florell & Wygant, 2013) have shown the link between aggression and CB perpetration; however, this project showed that there is a definite effect of aggression on CB victimisation as well. Although, anger was explored and reported separately, nonetheless, it was measured as a sub-scale of aggression. The main findings showed that as anger increases so does CB victimisation intensity, although, anger could not be proven a significant predictor for either victimisation or perpetration. Next was impulsivity, and it was found that as impulsivity increases so does victimisation intensity but not perpetration intensity. Suggesting that victims need better thinking before reacting to their victimisation, as irrational actions may lead to more severe CB victimisation; however, impulsivity did not prove to be a significant predictor. After impulsivity, self-control was explored and the findings indicated that as self-control increases, CB victimisation decreases, while interestingly it also functions as a risk factor for CB victimisation. The findings further suggest that indeed victims need better thinking before reacting to their victimisation, but perhaps should stand up for themselves, not to be confused with reciprocation.

Guilt was also examined and its subscales alike; the findings showed that as guilt-negative-behaviour-evaluation increases, CB victimisation intensity decreases; while, as shame-withdraw increases, so does CB victimisation intensity. Whereas, as

guilt as a total, guilt-negative-behaviour-evaluation, shame-negative-self-evaluation and guilt-repair increase, CB perpetration intensity decreases. In addition, guilt-negative-behaviour-evaluation functions as a protective factor for CB victimisation intensity. Opposing, shame-withdraw functions as a risk factor for CB victimisation intensity, as it was found that an increase in shame-withdraw would increase CB victimisation intensity. Finally, only guilt as a total was found as a significant protective factor for CB perpetration intensity. Such findings support previous research (Weber, Ziegele & Schnauber, 2013; Wang, 2016) that signified guilt as a protective factor for CB perpetration, and the necessity of incorporating guilt and shame acknowledgment in anti-bullying strategies. Penultimate, morality was explored, and it was shown that only progressivism was related to CB victimisation intensity, such as that as progressivism increases, CB victimisation intensity tends to increase. Nonetheless, none of the morality subscales or morality as a whole predicted CB intensity or perpetration intensity. Though, the results show that those that are more progressive may be at risk for more intense CB victimisation. Lastly, minimisation was studied; and the results showed that as minimisation functions as a protective factor for CB victimisation intensity. The results imply that those that minimise their cyber-victimisation, in the end experience less intense CB victimisation.

## **Conclusion**

As with SB, likewise with CB, it was shown that there are many factors that affect CB involvement, including rigid background factors, aspects related to family and friend environment, the preferences and individual use of the social media and the Internet in general, as well as personality and behavioural characteristics. However, the aspects that need to be taken into account mostly resulting from part three, relate

to the strong indications that SB and CB overlap, and the fact that educators, parents and anti-bullying strategy developers need to re-evaluate the definition for CB, as for SB; and start thinking of CB as a permanent SB component, rather than a sole type of bullying. Lastly, it has to be acknowledged that CB appears less prevalent than SB, although, when it occurs it is more intense than SB. Perhaps, this is a result of the education that this sample has received on bullying. It is assumed that youngsters have received more anti-bullying education, focused on SB, rather than CB, as CB is relatively new as a form of harassment; which is the reason that the next chapter examines the possible anti-bullying education that this sample might have received.

## **Part 4**

### **Anti-bullying Education**

#### ***Chapter 17- Anti-Bullying Education***

##### **17.1. Introduction**

Young people appear to disagree with the definition of bullying used in research and in school policies. Some of the youngsters feel that teachers ignore bullying incidents, while the views between the age groups differentiate and there appears to be a disagreement on which intervention type is effective (Side & Johnson, 2014). Others believe that, educators often do not pay attention to bullying incidents unless they are repeated, while schools do not necessarily agree with each other's bullying definition (Strohmeier & Noam, 2012). It can be seen that there is abundance of different opinions and disagreements related to bullying, therefore, it was suggested (Kirves & Sajaniemi, 2012; Pearson, 2005) that, schools need to find common grounds on the bullying definition; if all parties have the common goal to tackle bullying. But it is not just the definition of SB that is problematic; the CB definition also requires re-evaluation, particularly on the aspect of CB possibly belonging to SB as a prevalent type (Wang, Iannotti & Nansel, 2009). All these terminology inconsistencies create difficulties in recording reliable rates and developing efficient anti-bullying strategies (Rigby & Smith, 2011).

##### **17.2. Intervention for Bullying**

Dan Olweus developed the most known bullying prevention program and it is used worldwide for children ages six to 15 (Yerger & Gehret, 2011). Another program is the aggression replacement training; this method is a cognitive behavioural

intervention program that aims to reduce youths' anger and chronic aggression (ages 12 to 17). Similar is the Promoting Alternative Thinking Strategies Method, which focuses on social and emotional learning (SEL) and helps children build social and emotional skills that are necessary for effective emotional management , relationships and their work. The Steps to Respect Program, which also showed positive results, was created by a non-profit organisation; it attempts to prevent child abuse, violence, and bullying, by helping elementary school students identify, inform and understand the right to refuse bullying, while focusing on positive attitudes and building positive friendships (Adickes, Worrell, Klatt, Starks, Vosicky & Moser, 2013).

Others (Kousholt & Fisker, 2015; 2014) emphasised the need for change for both perpetrators and victims; particularly, they suggested that perpetrators are in need for empathy training while victims need confidence building. Ansary, Elias, Greene & Green (2015) proposed that an efficient bullying intervention program should provide firstly a clear definition and secondly it must include developmentally appropriate classroom activities that promote student engagement and self-reflection on bullying of all types. Moreover, it should incorporate a protocol for reacting to bullying with a continuous assessment of school climate and bullying incidents, while school staff must be appropriately trained, should intervention be required (Williford & Depaolis, 2016). An additional intervention method that showed positive results is the KiVa program, initially developed and tested in Finland. KiVa is based on the theory that bullying is a group process, in which the perpetrator behaves aggressively, to achieve a higher peer-group status and is reinforced by the apathy of bystanders. Therefore, through the program students are educated on the importance of peer involvement in stopping bullying as well as specific behavioural strategies to defend victims under such circumstances (Williford, Boulton, Noland, Little, Karna &

Salmivalli, 2012). To the extreme end, there are smartphone applications that detect bullying in the form of physical violence (e.g. hitting, shaking, pushing); this application has shown 90% accuracy, however has not been extensively tested (Ye, Ferdinand, Seppanen & Alasaarela, 2014). While, Chu, Hoffman, Johns, Reyes-Portillo and Hansford (2013) believed that there are not enough programs to address the socio-emotional performance of young individuals who suffer from anxiety, depression and other mental consequences of bullying. Thus, they suggested that the Group Behaviour Activation Therapy for Bullying, designed to deal with secondary outcomes of bullying.

Although there are more than 50 known intervention programs, nonetheless, the reduction of bullying after implementing these anti-bullying methods are only mild to moderate, while occasionally some of these strategies can produce negative results (Ansary, Elias, Greene & Green, 2015). Evans, Fraser and Cotter (2014) reported that from 22 studies that examined the effect of intervention methods in relation to perpetration, only half showed significant effects. Nonetheless, even if such approaches show positive results, it is not possible for every school, and particularly schools in areas and countries with low socioeconomic status, to provide funds for anti-bullying programs (Persson & Svensson, 2013).

Moreover, there is lack of anti-CB strategies, whilst those that exist, lack substantial consideration and support for the CB victim. Nevertheless, other means have shown to help with CB, such as reporting the event to an adult, teaching children how to deal with CB, and the KiVa program (Ryan & Curwen, 2013). Still, such methods have not been proven to be more effective than those dealing with SB; in most instances the strategies originally target SB not CB exclusively (Slonje, Smith & Frisen 2013). Others (Kokkinos, Antoniadou, Asdre & Voulgaridou, 2016)

recommended that parents should educate children and assess their parenting practices.

Nonetheless, amongst the existing anti-CB strategies there are some with promising results; such as the Quality Circles (QC) that functions as an exercise where students participate in a problem-solving exercise over a period of time, and identify key issues, prioritise concerns, analyse problems and generate solutions with a series of workshops (Paul, Smith & Blumberg, 2012). Others (Brody & Vangelisti, 2016) have shown results by focusing on the CB bystanders and their intervention, whereas, the NoTrap program utilises a peer-led approach to prevent and fight both SB and CB (Palladino, Nocentini & Menesini, 2016). As it can be seen, most programs do not differentiate between the two bullying forms, at least not in terms of factors. It is evident that there is abundance of anti-bullying strategies; however, most of the methods majorly fail in one aspect, that being a collective approach that can tackle both SB and CB, whilst accounting for victimisation and perpetration.

### **17.3. Anti-bullying education and training at home**

Research repeatedly showed that exposure to violence leads to aggressive behaviour, which in turn leads to bullying involvement, particularly without appropriate adult guidance. Specifically, Morgan (2013) mentioned that Beale and Hall in 2007 provided a list of suggestions to parents, in order to protect their children from CB. These methods namely are: regular discussion with children, provide a trusting attitude and notify the school if there is an incident or the authorities if the incident is severe. Similarly, Perren, Corcoran, Cowie, Dehue, Garcia, McGuckin,. . . Völlink (2012) signified that CB tackling requires raising awareness, creating more CB focused school policies, having adults supervise children when online and combine prevention strategies focused at home and at school. Nonetheless, the latter

authors informed that the few studies that examined the efficacy of such strategies concluded that only a combination of the aforementioned steps could decrease CB. Lastly, Internet supervision by parents may indeed have a declining effect on CB involvement, mostly because schools focus on SB rather than CB (Monks, Mahdavi & Rix, 2016). Once more, signifying the importance of developing a model that addresses both SB and CB.

#### **17.4. Anti-bullying Education and Training at School**

Schools and teachers can take steps to help bullying-involved individuals desist from such behaviour. Such as, workshops and presentations, or peer tutoring to inform students of the ways they can prevent SB and CB involvement. Teachers can also use classroom activities and discuss SB and CB; they can also grasp opportunities when an incident occurs and teach students of the consequences of such behaviour; and of course, they can act fast when such incidents take place (Morgan, 2013). Moreover, schools should educate parents and teachers as well, and provide students the opportunity to report such harassment anonymously if they wish.

Lee, Kim and Kim (2015) supported that schools should use policies that focus on emotional control training and peer counseling. Whereas Salmivalli, Kaukiainen and Voeten (2005) recommended that such policies should take into account the age factor and be flexible to cover the needs and requirements of all school ages; as some policies may work for primary but not for secondary school and the opposite (Stevens, De Bourdeaudhuij & Van Oost, 2000). In addition, schools should account for students with disabilities or simple learning difficulties; therefore, each policy should be inclusive (Raskauskas & Modell, 2011). Finally, schools and teachers should promote resilience (Gregory, Cornell, Fan, Sheras, Shih & Huang,

2010) and continuously assess the policy's efficacy, whilst adapting to new evidence and information is a requirement (Bickmore, 2011).

### **17.5. Onset of Anti-bullying Education and Effectiveness**

Studies on the aspect of when youngsters should be introduced to such training and education are relatively limited (Bradshaw, 2013). Nonetheless, Ferguson, Miguel, Kilburn & Sanchez (2007) showed that youth violence has been increasing the past decades; however, they also showed that such issues should be addressed from the beginning of the school years, gradually progressing from simply reporting classmate teasing, to later ages, when physical violence and more escalated bullying may occur. Unfortunately, it was shown (Smith, Smith, Osborn & Samara, 2008) that school policies rarely account for the age factor or other factors such as the socioeconomic status of students (Hong, (2008; 2009;)). Another significant problem with tackling bullying, is the fact that every school has its own rules and policies, apart from what the national curriculums obligate to implement; as a result some schools are more able to fight bullying and some are not (Smith, Kupferberg, Mora-Merchan, Samara, Bosley & Osborn, 2012). Therefore, it is recommended that the schools that have efficient policies should share their knowledge with other schools for all children to benefit. Furthermore, governments should find a way to provide sufficient funding to all schools, for the development of such policies, and should create legislation that addresses bullying of all types and all ages (Purdy & Smith, 2016; Puhl, Suh & Li, 2016). In order for that to happen, first, the inconsistencies in the terminology must be addressed (Seager-Smith, 2016).

### **17.6. Support at School**

Unless schools provide support to all individuals involved in bullying, such policies will not suffice. For example, Ross and Horner (2014) showed that amongst

other factors, promoting bystander support could have a positive effect on decreasing bullying incidents, while Berkowitz and Benbenishty (2012) reported that support from teachers is sometimes focused only on victims and bullies, and bully-victims are left out. The latter indicates teachers' lack of training and bullying comprehension. Therefore, wondering how much might have the present reported prevalence rates been affected by any anti-bullying education that the participants received.

### **17.7. Restorative Justice at Schools**

Schools often prefer the more punitive disciplinary practices when dealing with students' negative behaviour; understandably so, since such methods are more direct and faster, but do they have positive results? Research, has shown that the more open to discussion practices have frequently better results (Littlechild, 2011; Grossi, & Santos, 2012; Wong, Cheng, Ngan & Ma, 2011). One such example is restorative justice (RJ); at schools RJ is based on the assumption that if the practice is able to repair the harm done to a victim of a crime by the offender, then RJ could work for bullying as well. Nonetheless, it is not easy to implement an RJ approach, mainly because an approach like that requires a fundamental change of attitudes and beliefs (Payne & Welch, 2015; 2013;). With that said, schools could gradually introduce aspects of RJ, such as helping the victim and the perpetrator to engage in a mature discussion where both parties express their thoughts and opinions. Gradually schools could reach the level where RJ could become a permanent component of any school policy. Besides, Margaret Thorsborne originally introduced RJ in 1990s, as a response to issues that rose due to serious assaults in a school dance. The basis of RJ at the time was community involvement, finding the means to mend the harm done and of course minimise the likelihood of escalation and repetition. On the same basis, RJ could help schools prevent repetition and escalation of bullying incidents; whilst helping victims

forgive the perpetrator and helping perpetrators become a worthy and productive member of the micro-community (Gonzalez, 2012). Moreover, schools often operate on a zero tolerance policy, but without showing students the right way. The latter becomes a barrier in behaviour change; if students are not given examples of their behaviour's consequences, then most likely they will lack motivation for change (Teasley, 2014). Which is why, RJ requires staff training in order to function appropriately in the micro-community of a school (Mayworm, Sharkey, Hunnicutt & Schiedel, 2016). Lastly, others (Morrison, 2006; Ahmed & Braithwaite, 2012) advised that RJ, with emphasis on shame acknowledgement, could provide better results for both the perpetrators and the victims. Although, the ultimate goal of the policies is to repair the harm done, prevent repetition and escalation of such behaviour, not to stigmatise the perpetrator (Duncan, 2011; McCluskey, Lloyd, Stead, Kane, Riddell & Weedon, 2008). This is why more research on RJ implementation at schools is necessary (Ttofi & Farrington, 2012; Borg, 1998).

### **17.8. Resilience and Bullying**

Resilience is built first at home with the parents promoting independency and providing warmth, and continues at school with teachers acknowledging children's strengths and empowering their skills and unique characteristics (Bowes, Maughan, Caspi, Moffitt & Arseneault, 2010). Research (Sapouna & Wolke, 2013) has shown that resilient children are more able to stop their victimisation and have less chances of suffering from the consequences (Sims-Schouten & Edwards, 2016). Although there have been indications that resilience functions more as a protective factor for younger children rather than older children (Moore & Woodcock, S. (2016)). Therefore, it may be possible that resilience decreases with repetition of victimisation or escalation of severity of the bullying incidents.

## **17.9. Are Schools Prepared to Cope With Bullying**

Despite the various attempts to create efficient anti-bullying methods and despite the promising results of some programmes, still, bullying exists; therefore, it is safe to assume that not all schools implement efficient programmes. In addition, implementation comes down to the staff of the schools and it is possible that teachers respond differently to the various bullying types. For example, Boulton, Hardcastle, Down, Fowles and Simmonds (2014) showed that teachers respond to CB as they would to verbal SB. This could indicate lack of training and recognition of the severity of CB, lack of training to deal with the various types of bullying and perhaps the reasons of insufficient intervention. Furthermore, if teachers lack training, they will also lack the ability to advise students (Hunter & Boyle, 2004). However, the attempt to fight bullying should be collective, therefore all staff members of a school should receive such training (Pigozi & Jones Bartoli, 2016; 2015;). Although, the level of teachers' training is insignificant if students do not report the incidents (Novick & Isaacs, 2010); therefore, students should be appraised when they report bullying. Taking all the aforementioned into account, it is assumed that any anti-bullying education received by this sample could have affected the overall findings in this project. Consequently, it cannot be excluded from the analysis and the exploration conducted in this thesis.

## **17.10. Results**

***Descriptive Statistics:*** The majority of participants ( $N = 354$ , 87%) reported that their parents talked to them about bullying, and this anti-bullying education begun during preschool (200, 49%). Similarly, the majority ( $N = 364$ , 89%) stated that they were taught about bullying at school, with the most prevalent answer for the onset period, being during primary schooling ( $N = 213$ , 52%). In addition, most

participants ( $N = 256$ , 63%) stated that their school followed a strict policy about bullying with 188 (46%) believing that the policy was effective. Additionally, most ( $N = 202$ , 50%) supported that the school staff talked to the students for bullying and tried to help the bully change his/her behaviour. Furthermore, in most instances ( $N = 197$ , 48%), victims received support at school, and the school had the victim and the bully discuss the event ( $N = 182$ , 45%), although, in their school the staff did not attempt to build students' resilience ( $N = 155$ , 38%) (see table 17.10.1 in appendix B for more details).

Most participants ( $N = 198$ , 49%) also stated that bullies were expelled sometimes, although, the school staff talked to all students about bullying ( $N = 284$ , 70%). Likewise, the majority of participants ( $N = 267$ , 65%) reported that the school advised them to support the victims, and were told to intervene when they witnessed bullying ( $N = 207$ , 51%). Finally, most participants ( $N = 163$ , 40%) stated that their school was well informed and prepared for bullying incidents (see table 17.10.2 in appendix B for more details).

Lastly, in the SB section victims had been asked if they had ever expressed their feelings to the bully and if yes, what were the results, and perpetrators were asked if their victims had ever expressed their feelings to the first, and what were the results. From the 408 participants 154 (37.75%) did not respond to the victim related question. From 254 that responded, 179 (43.87%) stated that they had not expressed their feelings to the perpetrator, 53 (12.99%) did, and 22 (5.39%) sort of did but did not get into details. From the 254 that responded to this first question and the 75 that sort of and definitely expressed their feelings to the bully, only 74 responded on what resulted from such initiative (see Table 17.10.3).

Table 17.10.3. *Victims' perceptions on the results of expressing their feelings to perpetrators.*

Results of victims expressing their feelings to the perpetrators	Frequencies
The bullying stopped	21 (28.4%)
It felt really good expressing myself	21 (28.4%)
I was bullied even more than before	19 (25.7%)
Others made fun of me for expressing my feelings	17 (23%)
Others started bullying me as well	15 (20.3%)
It made me feel more powerful	14 (18.9%)
I eventually became friends with the perpetrator	13 (17.6%)
I was not that angry at the bully anymore	7 (9.5%)
We were forced to do this	5 (6.8%)
It did not stop, it felt liberating, made me feel right, nothing changed, I was accused of lying, and they felt guilty	< 2%

From the perpetrators' side, 330 (80.88%) did not respond to this question, and from the 78 that did, 47 (11.52%) stated that their victims had not expressed their feelings about their victimisation to the first, 21 (5.15%) did and 10 (2.45%) sort of did, but did not get into details. From the 78 participants that responded to the later question, 33 responded on the results of victims expressing their feelings to the perpetrator, suggesting that two more had experienced it but failed to report it previously (the responses are shown in Table 17.10.4).

Table 17.10.4. *Perpetrators' perception on the results of victims expressing their feelings to the first.*

Perpetrators' perception on the results of victims expressing their feelings to the first.	Frequencies
I felt really bad for my actions	19 (57.6%)
I felt sorry for that person	18 (54.5%)
I eventually became friends with the victim	14 (42.4%)
The bullying stopped	12 (36.4%)
Others made fun of the victim as well	4 (12.1%)
Others begun to bully that victim as well	3 (9.1%)
We were forced to do this	2 (6.1%)
I felt more powerful	1 (3%)

## 17.11. Discussion

After concluding all the factors and examining both SB and CB, it was appropriate to explore and examine whether any anti-bullying education received by this sample, played a role in the results that were presented in the previous chapters. Previous research (see for example Ye, et al., 2014; Persson & Svensson, 2013; Chu,

et al., 2013; Brody & Vangelisti, 2016; Palladino, et al., 2016; Williford & Depaolis, 2016) has shown the importance of educating youngsters about bullying, the consequences and the various ways they can protect themselves from involvement either as a victim or a perpetrator.

The current chapter showed that, almost 3/4 of participants stated that their parents had addressed the issue of bullying at home and 2/4 of these individuals had been introduced to the education since preschool. Therefore, it could be assumed that the parents of this sample had sort of followed Perren, et al., (2012) who signified the importance of parents educating youngsters about bullying. In terms of anti-bullying education at school, once more the majority stated that they had received such education, mostly during primary school. Such results indicate that the sample of this project had been introduced to anti-bullying education since a young age. Perhaps this could be the reason that in this project the perpetration rates were low. Besides, as Ferguson, et al., (2007) proposed, anti-bullying education should start at an early age, if schools and parents wish to see the rates decreasing. In terms of support at schools, half of the sample stated that the school staff tried to help the bully change his/her behaviour, and they felt that victims received support at school. While in addition, in half of the cases the school had the victim engage in a discussion with the perpetrator in order to resolve incidents, indicating aspects of RJ implementation. Moreover, in more than half of the cases, participants had been advised to support the victims and were told to intervene when they witness bullying. Overall, the majority felt that their school was prepared for bullying incidents and well informed; however, that does not mean that such rates are representative of all schools. Particularly if we take into account that approximately 1/3 felt that the school was not well informed or prepared. Such results indicate that indeed schools are trying to deal with bullying as best as

they can. Still there is much work to be done in order for victims and perpetrators to receive the required support (Berkowitz & Benbenishty, 2012).

Moreover, the majority of the participants stated that their school had a strict policy about bullying, supporting that their school policy was effective. Although, in half of the cases, perpetrators were sometimes expelled, indicating strict punitive measures. Perhaps, these rates indicate that there is some form of tolerance or the schools attempt to distinguish between the severity levels of the incidents. No matter what the reasons, research has shown that punitive measures do not function as well as restorative practices (Littlechild, 2011; Grossi, & Santos, 2012; Wong, et al., 2011). Therefore, it can be assumed that the perpetrators that received such punitive measures could return to the same practices, after their disciplinary period is over. It should be made clear that schools are not always able to resolve a disagreement with discussion, especially with repetitive severe perpetration that might require authority involvement.

Regarding restorative practices, victims were asked if they had ever expressed the way they felt after being victimised to their perpetrator and only 53 participants stated that they had acted in such a way. The results for those that expressed their feelings to the perpetrator appeared promising, as approximately half stated that the bullying stopped, they felt good by acting in such a way, more powerful, less angry at the perpetrator and even became friends with the perpetrator. Confirming RJ's main goal to mend the harm done (Duncan, 2011; McCluskey, Lloyd, Stead, Kane, Riddell & Weedon, 2008). However, there is also a dark side to the restorative practices, as 19 participants supported that after expressing themselves, they were victimised even more, not only by that one perpetrator, but also from others. Possibly, victims might be perceived as weak when expressing their feelings to the perpetrator, which can

result in further victimisation; or perhaps victims expressed themselves in an uncontrolled environment that did not include adult mediation. Therefore, validating that RJ can only function with properly trained school staff (Mayworm, Sharkey, Hunnicutt & Schiedel, 2016; Payne & Welch, 2015; 2013;).

As for the perpetrators, the rates were even less, only 21 victims had expressed their feelings to these perpetrators; nevertheless, for the perpetrators that had encountered their victims under the victims' initiative, it appeared that the restorative practices made a slight difference as they felt bad for their actions. Therefore, agreeing with Morrison (2006) and Ahmed and Braithwaite (2012) who stated that RJ with emphasis on shame acknowledgement could prove beneficial for both the bullies and the victims. In addition, some of the perpetrators felt sorry for the victim, further supporting the latter statement and indicating that RJ could increase empathy levels. While some became friends with the victim and stopped the bullying; therefore once more suggesting that RJ can mend the harm done. However, focusing on the dark side of RJ practices, one perpetrator reported that he/she felt more powerful after the victim expressed his/her feelings. Perhaps this perpetrator was the one that in another section freely stated "I destroyed their lives, my name is x, come and find me". It can be assumed that this individual suffered from extreme anger and aggression, whilst lacking school support and guidance.

Additionally, support, restorative practices, disciplinary measures and other techniques may be insufficient, if youngsters are not equipped with resilience and confidence to report such incidents. In this sample, resilience appeared to be a neglected practice at the schools that the participants attended; therefore, it can be assumed that these schools also lacked tools for improving students' confidence. Such results show that many schools necessitate improvement in terms of helping students

becoming more resilient. Besides, research (Sapouna & Wolke, 2013; Moore & Woodcock, 2016) has shown that victims with higher levels of resilience deal with their victimisation better, while high self-esteem has already been proven a protective factor for victimisation. It must be noted that building resilience is not a task that can be achieved only at school, but it has to begin at home (Bowes, et al., 2010).

Regardless, school staff has the opportunity to spot less confident students and could provide more support for such individuals. Although, it is advised that school staff should pay equal attention to both the victim and the perpetrator as both parties require guidance. Lastly, most participants reported that the school staff talked to them about bullying, indicating that these schools attempted to be prepared for such incidents. However, sometimes, schools lack training in providing guidance for effective coping strategies (Hunter & Boyle, 2004), or selectively train some staff members (Pigozi & Jones Bartoli, 2016; 2015;).

### **17.12. Conclusion**

Concluding, it appears that bullying prevention and intervention should be a collective attempt; parents must educate their children from a young age, schools should provide support to both the victim and the perpetrator, but above all, youngsters should be encouraged to report bullying incidents and ask for help when they are troubled. It should be mentioned that regardless if scientists discover important findings, or develop efficient and sufficient anti-bullying programmes, if there is not an agreement on the legal implications of SB and CB, still many individuals would continue this harmful behaviour; which could even lead to criminal life. Presently, the laws and punishment for bullies and cyber-bullies in each country differ from severe punishment to just being frowned upon (see NoBullying, 2015; Gillespie, 2006 Tettegah, Betout & Renee Taylor, 2006), while perceptions of

whether bullies should be punished vary (see Morrow & Downey, 2013; Law, Shapka, Hymel, Olson & Waterhouse, 2012; Cassidy, et al., 2009). Consequently, signifying the need for an agreement on the terminology of SB and CB, the promotion of RJ, the anti-bullying education from a young age, the equal support to victims and bullies, and clarity from the law. But above all, demonstrating the necessity for all schools to incorporate an anti-bullying model in their daily tasks and curriculums. A model that could be collective, adaptable, flexible and capable for continuous update; such a model is presented in the next chapter, prior to closing this thesis.

## **Part 5**

### **Comparing Findings Related to SB and CB**

#### ***Chapter 18 - Comparing SB to SB – The Anti-bullying Model Emerges***

Chapter 18 summarises the projects' findings, while providing a comparison between SB and CB. The comparison takes place in three different sections; starting with a comparison between SB and CB frequencies, followed by a comparison between SB and CB associations with the factors, as well as differences, and closing by comparing the regression models. For chapter 18 there is no discussion; instead, a proposed model for tackling bullying is presented; this model contains the significant variables that protect individuals from SB and CB involvement.

#### **18.1. Comparing Frequencies**

In this section, the frequencies of SB are presented in comparison to CB; starting with SB victimisation, for which the majority ( $N = 246$ ) reported that they had experienced SB victimisation at least once in their life, while the mode for CB victimisation was no ( $N = 256$ ). For participants that experienced SB victimisation the average of intensity was three while the average intensity for CB victims was 5.8; suggesting that although bullying occurs more often at school, nonetheless when it occurs online, it is more intense and more types of bullying are used. In terms of perpetration, both for SB and CB the perpetration rates appear to be quite low. Regardless, once more it appears that the intensity of bullying is higher online with an average of 1.86 in comparison to SB that was .49. Additionally, CB victimisation appears to occur in a higher frequency than SB victimisation, and the same resulted for CB perpetration in comparison to SB perpetration. Perhaps, as repeatedly stated in

this thesis, the anonymity that is offered online makes it easier for youngsters to get involved in such behaviour, while the absence of face-to-face interaction, empowers the wrongful perception that CB does not have real consequences. Next, it was shown that, at school victims were mostly verbally bullied, whereas in the cyberspace, spreading rumours was the most prevalent type of victimisation. In terms of perpetration, it was found that there is consistency with victimisation, as once more verbal bullying prevailed for SB and spreading rumours for CB. In previous literature, I was also found that verbal bullying prevails other types of SB, and spreading rumours has been reported amongst the most preferred types for CB. A very interesting finding from this study is that most of the SB victims were victimised by girls in the same class and the same response was for CB victims. With consistency, most of the SB perpetrators victimised girls in the same class and the CB perpetrators alike. Confirming that, CB might be an outcome of SB, as grievances might arise at school and escalate online. Therefore, supporting the overlapping between the two forms of bullying and implying that CB is not a distinct form of bullying, but a dominant sub-type of SB. In addition, SB victims believed that they had been targeted because of their weight, while for CB victims it was arguments in other settings. As for perpetration, SB perpetrators targeted particular victims that did not get along with others, whereas CB perpetrators targeted those with whom they argued in other settings. Consequently, suggesting that CB is an expansion of SB, with victims being targeted for their appearance and perhaps retaliating, becoming aggressive and perhaps antisocial; therefore leading to CB which apparently is a definite outcome of arguments in other settings.

Most of the SB victims reported that their victimisation stopped when they left school; while for CB it was standing up to the perpetrators. Opposing, both SB

perpetrators and CB perpetrators stopped victimising others because of guilt. The frequencies in these aspects present some kind of perception difference between victims and perpetrators; although both types of perpetrators ceased victimising others because of guilt, both types of victims felt that it was others reasons. Therefore, leading to certain assumptions; first that SB victims are perhaps more pessimistic than CB victims or that is not that easy to escape SB victimisation in comparison to CB victimisation; second that perpetrators are capable for change particularly if they are shown the consequences of their actions; and third retaliating, standing up and fighting back might only work for CB and perhaps SB stops with more indirect ways.

For SB only, the answer could be in parents' mediation; as the majority of SB victims' parents knew of their children victimisation, but the majority of CB perpetrators' parents did not know about their children's' online negative behaviour. It could be assumed that, the parents that knew of their children's victimisation did minimal in order to stop such events, and thus, SB victims might have felt that the victimisation stops only when they leave that school. On the other hand, it could be assumed that perpetrators did everything they could to hide their negative behaviour from their parents, probably because they knew that their behaviour was wrong, which ultimately led to feeling guilty about their actions. Moreover, the majority of SB victims stated that they had attempted to assist other victims and similarly did SB perpetrators; suggesting that, each individual has a level of empathy for some other victims. Particularly, the majority of SB victims attempted to help other victims because bullying in general is not right, whereas perpetrators realised that bullying is wrong. Regardless of the reasons, it is apparent that intervening is helpful as in most cases that SB victims intervened in other victims' victimisation they succeeded in stopping that victimisation and the same occurred when SB perpetrators intervened.

Nonetheless, how easy can it be for bystanders to intervene if victims do not ask for help? From this sample, the majority of SB victims never expressed to the SB perpetrator how they felt about their victimisation and the majority of perpetrators reported that their victims had never made such an attempt. However, from the SB victims that did, the majority managed to stop further victimisation and the majority of perpetrators felt bad for their actions when victims told them how they feel. Therefore, suggesting that victims could reason with perpetrators or at least could make an initial attempt before proceeding to other means. Besides, it was shown that most of the victims believed that they were sort of able to defend themselves from victimisation. Perhaps, it is a matter of building resilience, as most of participants reported that they never faced bullying at home, and it could be assumed that when they first encountered such victimisation at school, they were taken by surprise. However, this must be interpreted with caution, as it is not advised that children must be teased at home in order to build resilience to be prepared for when victimised at school. Quite the opposite, it could be assumed that those victimised at home might actually force themselves to build specific coping strategies, which could be useful when and if victimised at school; regardless, this assumption can be proved or disproved only with further research.

In terms of CB only, the majority of the CB victims faced their victimisation in Facebook and likewise most CB perpetrators victimised others in Facebook; suggesting the need for more parental monitoring when youngsters use Facebook, and the necessity for more efficient anti-CB tools from Facebook developers. Previously it was shown that in most instances CB occurs because of arguments in other settings; in this study 58 victims stated that they had been victimised by the same perpetrator in other settings and CB perpetrators victimised the same victim in other settings.

Possibly the only way to further examine this contradiction is with a sample that has been undeniably involved in both bullying forms. Moreover, when participants were asked if the role of the social media is important for CB involvement and whether an attack would still happen without the social media, the majority of both victims and perpetrators reported that the attacks would not have occurred if the social media did not exist. Consequently, suggesting that adults should monitor young individuals closely when online, whilst advising and supporting when required. The latter is further sustained, as the majority of CB victims did not receive support when they were victimised online, whereas all of CB perpetrators had received some kind of comment from someone else and encouraged to stop CB perpetration. Regardless, the support for CB victims and CB perpetrators was through discussion, and it appears that this assistance proved to be helpful only for the victims, as the majority of the victims found ways to stop their victimisation, whereas nothing changed for the perpetrators. Finally, it was shown that all of the CB perpetrators had switched to CB victims at some point in their life, while most of the CB victims had not CB perpetrated, although approximately 45% did, which indicates revenge and retaliation.

Concluding this comparative section, the majority of participants had received some kind of anti-bullying education from their parents during preschool; and from teachers during primary school. This suggests that although SB occurs at schools, the parents are the ones that initiate anti-bullying education; perhaps, schools should reconsider and begin anti-bullying education from preschool. However, this is not to be taken as criticism for schools, as most participants stated that the school staff at the school they attended supported the victim. Tried to help perpetrators change their negative behaviour, the school staff provided advice in general about bullying, students were advised to support victims and intervene when they witness bullying

incidents. Furthermore, most schools used some sort of restorative practices as the school staff had the victim and the perpetrator discuss the incident. Finally, most participants believed that the school had a strict anti-bullying policy, which was effective and the personnel were well informed about bullying (see Table 103 in appendix B for further details on comparing frequencies). All the above, indicate the current sample attended schools that were somehow informed about bullying, had taken measurements to intervene and prevent bullying, and were aware of the necessity of supporting the victim but also showing that negative behaviour is not tolerable. Consequently, this assumption leads to wondering if the anti-bullying education that this sample received, played a role in the low prevalence rates for the reported perpetration; thus, it is of high importance for the latter to be clarified in the future with a study more focused on this particular aspect. Perhaps, bullying can be reduced, and even eliminated, by identifying efficient and successful anti-bullying strategies (Tzani-Pepelasi Ioannou, Synnott & McDonnell, 2019) that can be implemented since a young age, and by informing all schools of these practices.

## **18.2. Comparing Associations and Differences**

The comparison begins with further analysis that indicated an association between SB victimisation SB perpetration occurrence, and likewise CB victimisation occurrence with CB perpetration occurrence. It was also found that SB and CB are related, particularly SB victimisation occurrence and CB victimisation occurrence ( $\chi^2(2) = 68.89, p < .001$ ) (see Table 18.2.1 in appendix B), SB victimisation occurrence and CB perpetration occurrence ( $\chi^2(2) = 7.10, p = .029$ ) (see Table 18.2.2 in appendix B), and SB perpetration occurrence and CB perpetration occurrence ( $\chi^2(4) = 66.76, p < .001$ , Fisher's two tailed test = 46.54,  $p < .001$ ) (see Table 18.2.3 in appendix B). While in addition, SB victimisation intensity appeared significantly

related to CB victimisation intensity ( $r_p = .416, p < .01$ ). Consequently, once more strengthening that CB is not an individual type of bullying but perhaps a continuum of SB, and it appears that nowadays the opposite also occurs. Moreover, it needs to be signified that victimisation can result from perpetration and the opposite can occur in the form of revenge. Therefore, indicating the need for informing victims of the right reaction ways, and perpetrators must be educated that by exhibiting a negative behaviour, they are risking victimisation themselves.

Going back to chapter six, parents' awareness of SB victimisation and SB victimisation occurrence were found related, as did parents' awareness of SB perpetration and SB perpetration occurrence; opposing, victimisation at home was found related only with SB victimisation occurrence. Relationships with parents seemed more interesting as a friendly relationship with parents appeared related with SB victimisation occurrence and SB perpetration occurrence; whilst there were significant differences between the Yes and No categories of friendly relationship with parents and SB victimisation intensity, as well as SB perpetration intensity. However, no significant results were found for CB in terms of having a friendly relationship with parents. Parental support on the other hand appeared less influential as it seemed related only to SB victimisation occurrence, while showed significant differences between the levels of Sort of and Yes only for SB victimisation intensity. Next, parenting style showed significant differences between permissive and uninvolved parenting style for SB victimisation intensity. Additionally, whether participants had siblings was related only to SB perpetration occurrence. Still, there were significant differences between the levels of No and Yes in terms of CB victimisation intensity and CB perpetration intensity. Sibling teasing also appeared related to both SB victimisation occurrence and CB victimisation occurrence, whilst

showing significant differences between the levels of No and Yes for both SB victimisation intensity and CB victimisation intensity. Although, parents' reaction to sibling teasing was related only to CB perpetration occurrence, while showing significant differences between the levels of "Ignored it - family joke/normal behaviour between siblings" for SB victimisation intensity. Opposing, SB victimisation intensity was significantly different between the levels of No and Yes of sibling support. Concluding with the nominal variables, it was found that "whether friends know what is going on in perpetrators lives" was related to both SB perpetration occurrence and CB perpetration occurrence. However, friends' support was related only to CB perpetration occurrence; while whether parents know who their children's friends are, was related to CB victimisation occurrence. Finally, before proceeding to the validated scales it should be mentioned that CB perpetration occurrence and online violence exposure were related. While there was a significant small negative relationship between the onset of social media use and CB victimisation intensity; suggesting that as the onset age of social media engagement increases, CB victimisation tends to decrease. It can be seen that, there are many common associations between SB and CB, and in many cases the relationships show the same direction; the latter suggests that SB and CB can be tackled together and the same anti-bullying model could potentially address both SB and CB. However, there are also many differences that, signify the need for a model that can be flexible and adaptable to new information; such model would need to be evaluated frequently and used as each environment indicates.

As it was mentioned in previous chapters, the validated scales were examined only in relation to bullying intensity, since intensity necessitates occurrence. Starting with the main scales and SB victimisation intensity, which showed significant

positive relationships with aggression, impulsivity and guilt. CB victimisation intensity on the other hand, appears positively related to empathy, aggression, anger and impulsivity. Therefore, aggression and impulsivity are the common factors positively related to both SB and CB victimisation intensity.

Moreover, SB victimisation intensity is negatively related to self-esteem and minimisation; likewise, CB victimisation intensity appeared negatively related to self-esteem, self-control and minimisation.. Consequently, self-esteem and minimisation are the common factors negatively related to both SB and CB victimisation intensity.

In terms of sub-scales and SB victimisation intensity, suffering, hostility, GNSE, GSW, and progressivism are significantly and positively related to the first;; whereas, CB victimisation intensity was significantly and positively related to suffering, feel for others, responsive crying, hostility, physical aggression, verbal aggression, GSW, and progressivism. Consequently, suffering, hostility, GSW and progressivism are the positively related common sub-factors to both SB and CB victimisation intensity.

Opposing, SB victimisation intensity appears negatively related to emotional contagion and purity; on the other hand, CB victimisation intensity is negatively correlated with GNBE only. Thus, there are no common sub-factors negatively correlated with both SB and CB victimisation intensity; and with the latter closes the comparison for victimisation intensity.

Next, SB perpetration intensity was found to be significantly and positively related to aggression, anger and impulsivity; on the other hand, CB perpetration intensity was significantly and positively correlated only to aggression. Consequently, aggression is the only common main factor positively related to both SB perpetration intensity and CB perpetration intensity.

Following, SB perpetration intensity was found significantly negatively correlated to the following factors: empathy, guilt, self-control and morality; whereas, CB perpetration intensity is significantly negatively correlated to only guilt. Therefore, guilt is the only common main factor that is negatively correlated to both SB and CB perpetration intensity.

Finally, SB perpetration intensity is significantly positively correlated to the following sub-factors: suffering, hostility, physical aggression and verbal aggression; while, CB perpetration intensity is positively related to verbal aggression only, with verbal aggression being the only common positively correlated sub-factor to both SB and CB perpetration intensity.

Opposing, SB perpetration intensity is significantly negatively related to the following sub-factors: emotional attention, feel for others, positive sharing, GNSE, GNBE, GR, harm and in-group. CB perpetration intensity on the other hand, is significantly negatively correlated to the following sub-factors: GNSE, GNBE and GR. Concluding that GNSE, GNBE and GR are the common negatively correlated sub-factors to both SB and CB perpetration intensity. For more details and a summarisation of the correlations and differences (see Table 107 in appendix B).

As with the frequencies, once more it can be seen that there is no one way simple enough to address bullying. Many factors show complicated associations with both SB and CB or one of the two. Therefore, again, suggesting that any anti-bullying model must be flexible and adaptable, in order to be able and address equally the most prevalent forms of bullying, if not all.

### **18.3. Comparing Predictions**

This last section compares the factors that have an effect on SB and likewise CB, while presents the factors that predict SB and CB, all in terms of victimisation

occurrence and intensity as well as perpetration occurrence and intensity. Starting by comparing SB victimisation occurrence to CB victimisation occurrence.

Significant predictors that appear to increase the odds of observing SB victimisation occurring are atheism and sibling teasing. Whereas, for CB the significant predictors that have an effect on the odds of observing CB victimisation occurring, are CB perpetration occurrence atheism and sibling teasing. On the other hand, having a friendly relationship with parents decreases the odds of observing SBVO. While for CB, the decreasing effect is observed from more factors. Starting with age, that appears to decrease CBVO, by being male, and if parents know well their children's friends. Therefore, atheism and sibling teasing are significant predictors for both SB and CB victimisation occurrence.

Next SB victimisation intensity was compared to CB victimisation intensity. The first factor that showed to predict and increase the mean value of SB victimisation intensity is atheism, followed by hostility. While CB victimisation increases with empathy, responsive crying, self-control, aggression, once more hostility, GSW, the perception that social media play a role in CB, and online violence exposure. In terms of a decreasing predictive effect, SB victimisation intensity decreases by having a friendly relationship with parents, with having higher self-esteem, including purity. On the other hand, the Muslim category of religion decreased CBVI, and likewise the same occurs with aging. Also, by being middle-eastern CBVI decreases, and the same occurs for the white category, and by being male, and having higher levels of self-esteem, GNBE and minimisation. Consequently, self-esteem and hostility are the common factors that predict both SB and CB victimisation intensity.

Following is perpetration, which begins with SB perpetration occurrence, whilst comparing it to CB perpetration occurrence. The first factor that showed an increasing effect on SB perpetration occurrence is age, followed by male gender, not having a friendly relationship with parents and friends not knowing anything about what is going on in perpetrators' life Whereas, CB perpetration occurrence increases only if the perpetrator had experienced CB victimisation. In terms of a decrease, SB perpetration occurrence and the category of sort of, decreases with an increase in the number of the perpetrator's siblings; while, no factors from this part showed decreasing effects for CB perpetration occurrence. Therefore, there were no common factors for both SB and CB in terms of perpetration occurrence.

Finally, regarding perpetration intensity the factors that showed a predictive effect for SB perpetration intensity, are only age and gender;; while CB perpetration intensity decreases with guilt. Consequently, no common factors showed a predictive effect for both SB and CB perpetration intensity (see Table 18.3.1 in appendix B for more details).

By comparing the results from the regression model, it is evident that there are common factors that have an effect on SB and CB, with the same direction; consequently, exhibiting the ability of creating an aggregated anti-bullying model that could tackle both SB and CB. However, by no means, such a model is simple or easy to develop, as it is shown bellow in the model proposition that resulted from this three-year project.

#### **18.4. Anti-bullying Model Proposition**

The anti-bullying strategy proposed in this thesis is based on the significant findings that resulted from all the analysis. Baring in mind that for the proposed model there is no distinction between occurrence and intensity. The model is split into

four levels sequenced according to the importance of inclusion in the anti-bullying strategy:

**Level A.** Suggestions according to significant predictors; taken into account as the most important aspects that must be addressed, focusing on both SB and CB and concentrating both on victimisation and perpetration (see Figure 18.4.1).

**Level B.** Suggestions according to significant relationships; taken into account as important effects on bullying that must be addressed (see Figure 18.4.2).

**Level C.** Suggestions according to significant differences; taken into account as recommendation for further research and as important aspects that require attention (see Figure 18.4.3).

**Level D.** Suggestions according to the prevalence rates, taken into account as indications for further research and validation. This level is focused more on general bullying; in other words presenting the means that could create a positive environment for youngsters and potentially decrease the rates for SB and CB, in terms of both victimisation and perpetration. However, as the bullying rates are relatively low in this sample it could be assumed that the participants, their families and friends attempted to deal with bullying in a sort of efficient way. Therefore, with reservations and proposition for further research, suggestions are provided and presented in Figure 18.4.4 and 18.4.5.

## Proposed Anti-bullying model – Level A

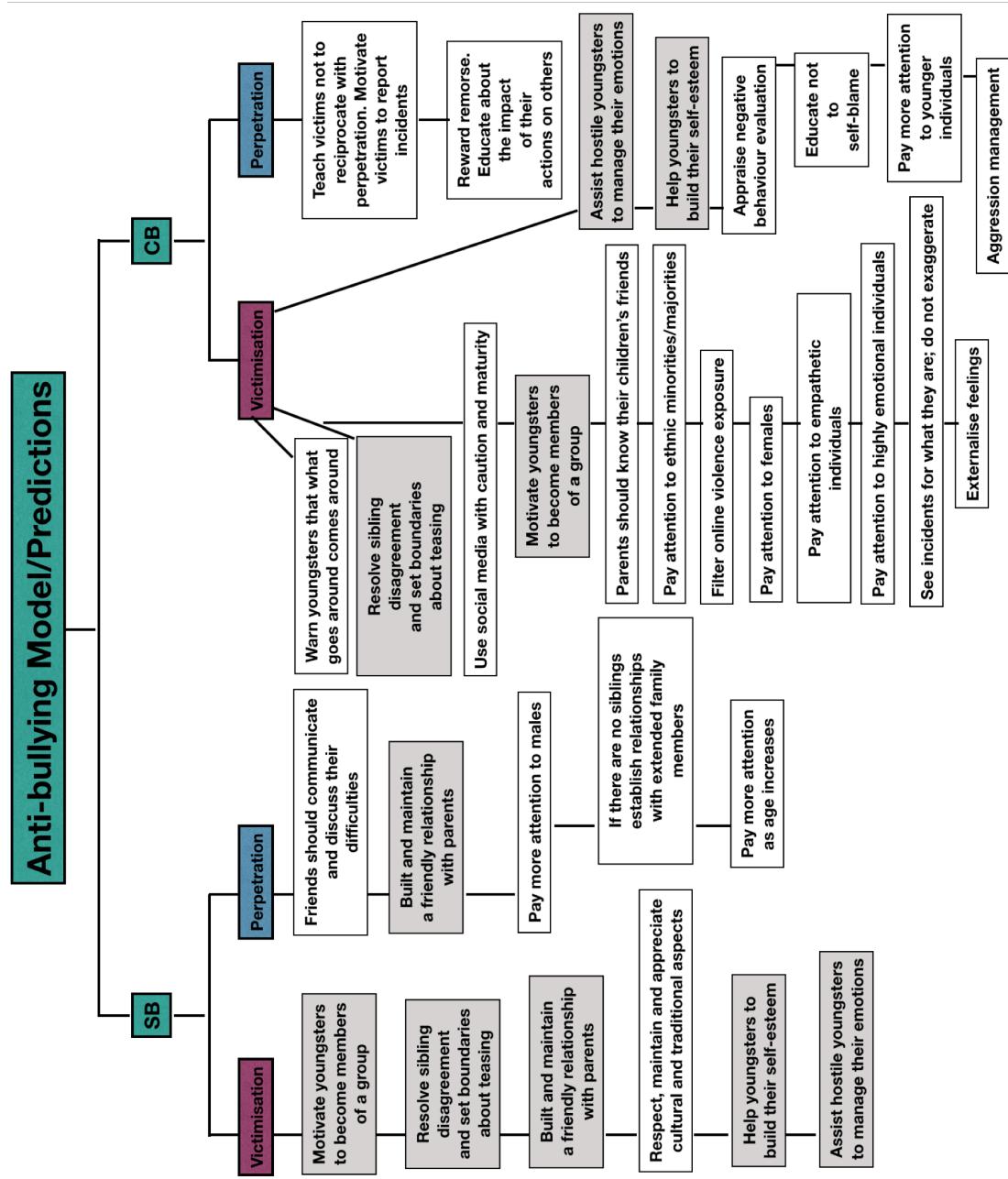


Figure 18.4.1. Anti-bullying model according to significant factors/predictors.

## Proposed Anti-bullying model – Level B

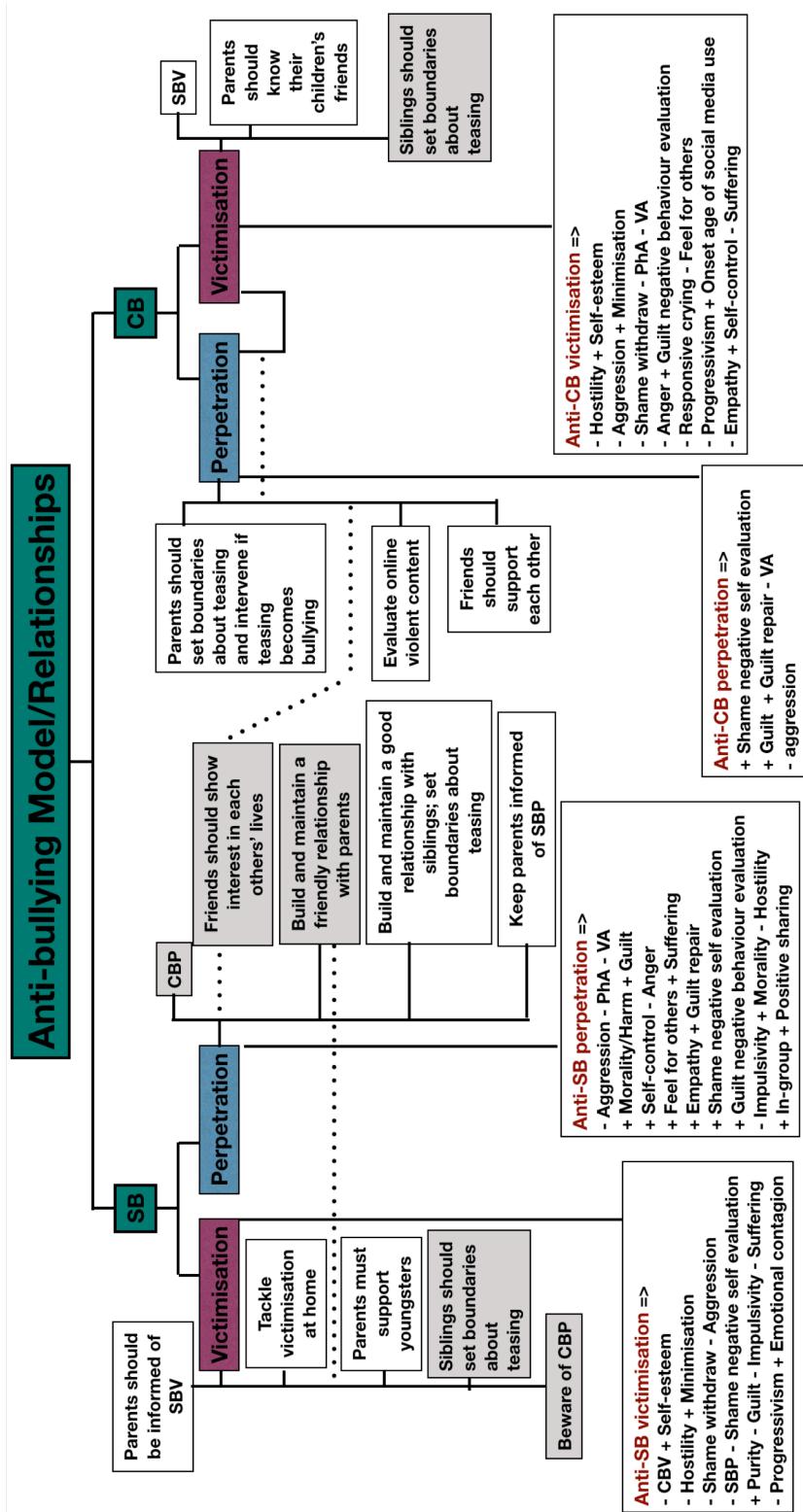
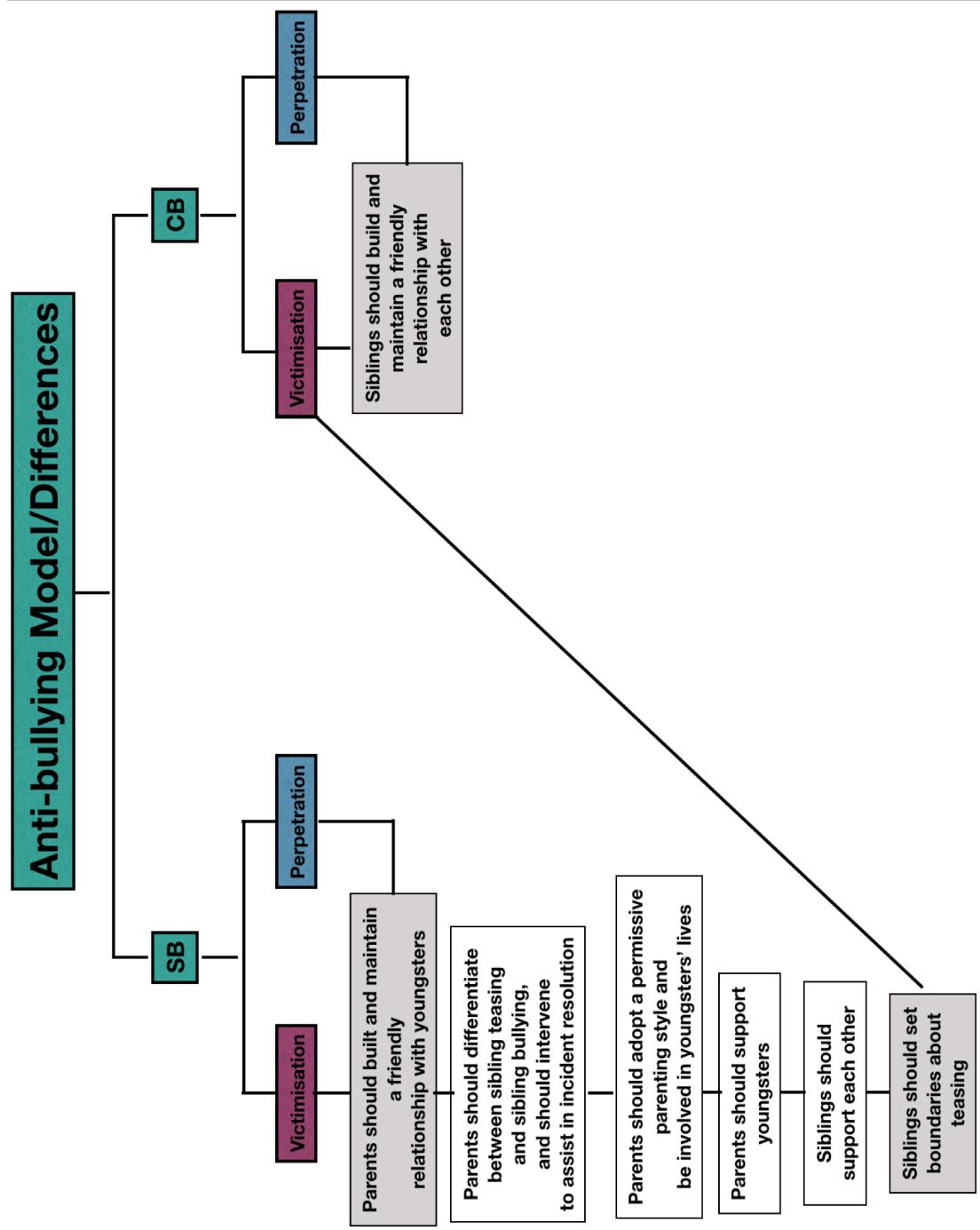


Figure 18.4.2. Anti-bullying model according to significant associations.

## **Proposed Anti-bullying model – Level C**



*Figure 18.4.3.* Anti-bullying model according to significant differences.

## Proposed Anti-bullying model – Level D

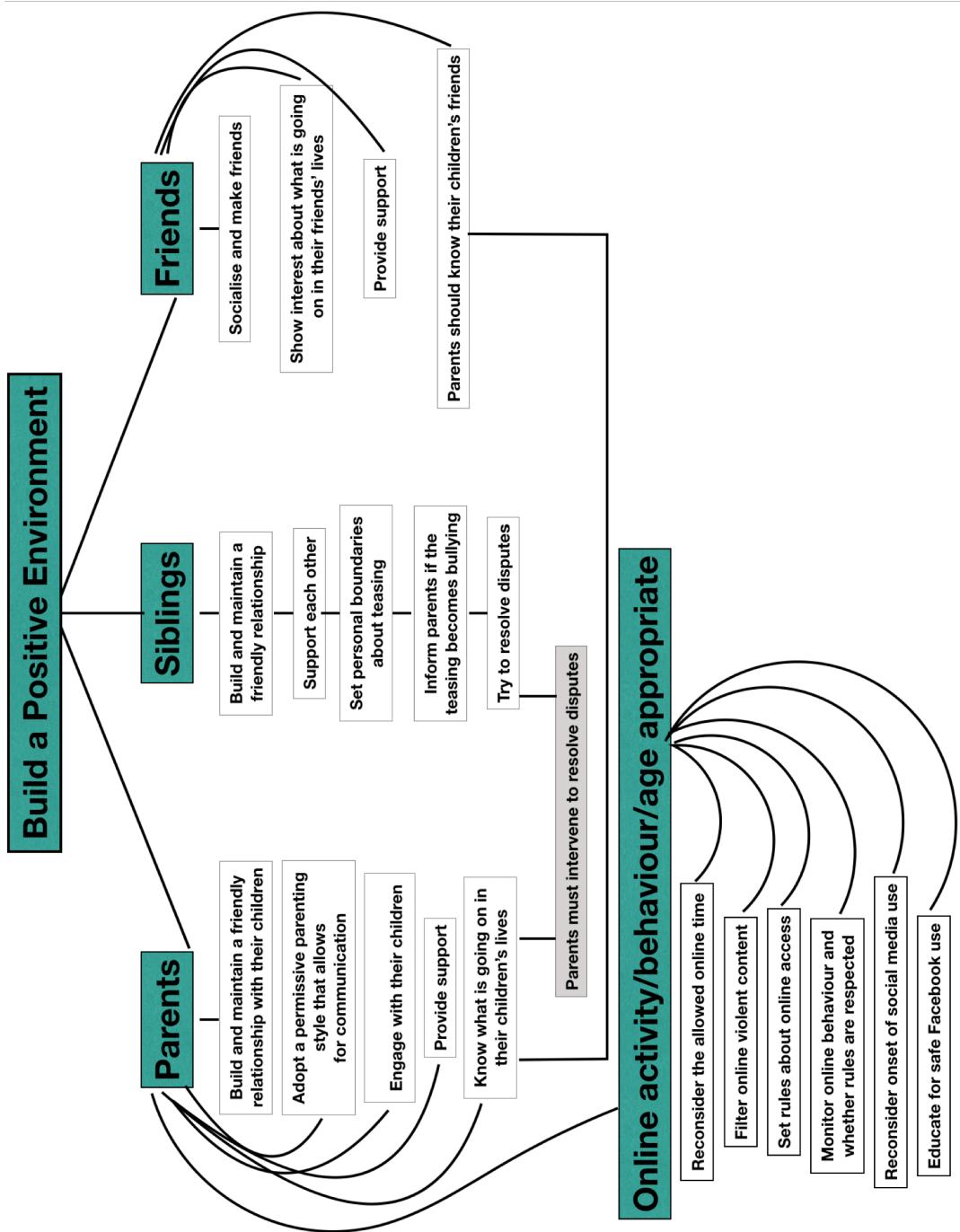


Figure 18.4.4. Suggestions according to prevalence rates, for parents, siblings and friends for building a positive environment capable of decreasing bullying; further research is advised.

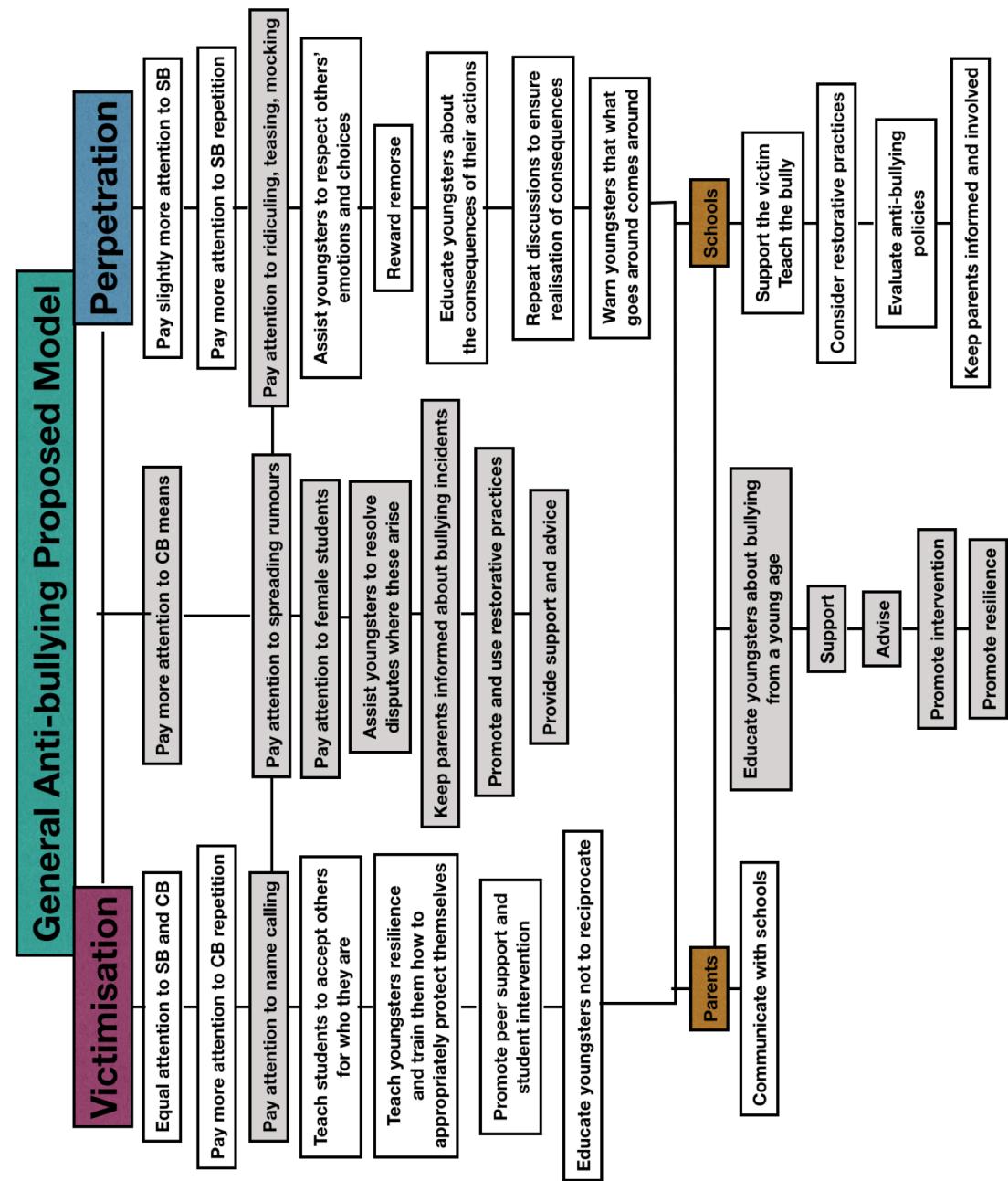


Figure 18.4.5. General anti-bullying proposition based on prevalence rates and descriptive statistics; further research is advised for validation.

## **18.5. Conclusion**

Driven by previous reported severe consequences and other disturbing aspects related to both the victims and the perpetrators involved in bullying, this three-year project aimed to study numerous well-examined and neglected factors drawn from past literature, by using the same sample. Aspiring to contribute in research related to bullying and assist in tackling bullying and increase awareness, the project resulted in the development of an aggregated anti-bullying model that addresses both SB and CB with a multilevel and sequenced intervention advisory method. Along with the model, other important findings have been presented, such as prevalence rates, relationships between the bullying forms and the various factors, significant differences, predictions, as well as a comparison between SB and CB.

It is well recognised that the model and the findings are accompanied by limitations. However, this model is the first step towards a follow up longitudinal study that will test the model in collaboration with educational organisations and it is expected that replication of various parts of the study will occur, alterations of the model will take place and moderation of the suggested steps of the model will arise. Nevertheless, it is also recognised that although the sample was not as large as in other studies, still the findings have provided a direction towards the focus of the future longitudinal project.

The most important aspect from this chapter is the proof that SB and CB can be addressed together. The latter statement is based on the fact that there are many common factors that have an effect on both SB and CB, and such factors can be incorporated in the same anti-bullying model, as in the one developed in this study. Concluding, apart from the aggregated approach, the current model is flexible and can be used by any community and organisation freely; given that appropriate training

precedes the model's use and validation that in that specific community the model remains stable or requires adaptation.

## ***Chapter 19 – Limitations, Implications and Future Research Direction***

### **19.1. Limitations and Directions for Future Research**

As any research project, likewise this project comes with limitations that must be acknowledged. Starting with the fact that the project and participant recruitment was advertised through the social media, consequently, there was no control in terms of which part of the world the questionnaire was completed. This resulted in a non-normal distribution of where the participants were born and live, which could be considered as a limitation regarding the findings' generality. Regardless, as the majority of participants were either born or lived in the UK at the time of the questionnaire completion, generality can be assumed for the UK. Nonetheless, as cultural variations may have affected the reported rates of SB and CB,, it is advised that future research should advertise participant recruitment with exclusion criteria that, will allow completion only by citizens of one country. On the other hand, if future research examines bullying worldwide, then the target should be a much larger worldwide sample with equal representatives from all participating countries.

The next and very important limitation, that has probably also affected findings of this project but other similar projects are the definitional inconsistencies of both SB and CB (Griffin & Gross, 2004; Cuadrado Gordillo, 2011). From the moment that there is no worldwide agreeableness on the definition, any comparisons between this project's prevalence rates and those reported in previous literature are to be considered with caution. Participants from another project might have perceived bullying in a different way than how it was perceived in this project. Moreover, there is no telling if participants answered the questions basing their opinion only on the provided terminologies and not on their personal beliefs. It has been explained in the literature of this study that frequently youngsters' perception of bullying differentiates

from the researchers' or adults' perception. Therefore, future research should consider such inconsistencies and perhaps should allow participants to report their perception of the bullying definition, in addition to the chosen definition that would be presented in any related research.

Another limitation that was identified was the inconsistency in some questions when addressing SB victimisation and SB perpetration. This was the fact that SB victimisation included two response levels (yes – no) whereas the SB perpetration rates included three levels (yes – no – sort of). This created some difficulties in the analysis, as the same statistical tests could not be performed for both SB victimisation and perpetration. For example, when regression models were run binary regression was preferred for SB victimisation while multinomial logistic regression was more suitable for SB perpetration. Although, it did not affect the findings, regardless it has to be noted. Despite reviewing the questionnaire numerous times before releasing it to the public, some mistakes like the above were not noticed. A similar unnoticed inconsistency was that the role switch between victim and perpetrator was not addressed the same for SB as for CB. Unfortunately, it was noticed in a much later stage that there was no direct question to SB victims and SB perpetrators addressing the role switch, while for CB it had been included. This limitation created a minor issue when attempting to calculate the rates of the role switch in SB; regardless, by taking into account that 11.7% of perpetrators bullied others because the latter had first victimised the aforementioned, it was assumed that these individuals had role switched. Still, having consistent measurement for both SB and CB role switch would have allowed for more analysis and perhaps insightful findings. Although, the questionnaire was examined by a second researcher for reliability and tested with 10 participants that were not included in the sample, and although feedback was given,

nonetheless, in such a lengthy questionnaire minor inconsistencies or mistakes can be missed. Consequently, future research should consider testing any survey with a much larger pilot sample in order to identify any inconsistencies, spelling mistakes or other discrepancies.

As mentioned above the survey was quite lengthy and it took participants approximately 1.30 to two hours to complete it, whilst could not be paused and completed later. The length could have a played a role in terms of the final sample size; perhaps if a shorter version had been released, more participants could have been recruited and a larger sample size could have provided more robust results. Regardless, the survey will be repeated with a subsequent project that will run for longer, consequently allowing for a bigger sample size. The survey also required participants' to use their long-term memory to remember bullying experiences from the past, and it required concentration for completing the scales. There is no doubt that the survey was tiring. This might have created various issues. For example, some participants may have dropped out from completion somewhere in the middle, and others might have answered as an automatic mechanism just to finish it. Thus, there is no telling whether all participants' input was truthful, while the sample could have been larger, which poses a limitation in terms of reliability. Regardless, for this project's aim the particular survey was the only option, as the target was to examine and present an aggregated picture of the most significant factors and the most neglected factors indicated by previous research. Related to the latter limitation, a large portion of the sample was recruited via SONA, the online Huddersfield University Sample pool. These participants were undergraduate students that registered to complete the survey in order to get credits, which are necessary for the years' progression. Although, this did not present any issues in terms of distribution,

as Huddersfield University is broadly multicultural and it has a wide student age variation, nonetheless, these participants might have completed the questionnaire as an obligation. Consequently, some of them may have not answered all the questions carefully and may have completed the questionnaire just for the credits, which could pose a limitation for the findings' reliability. Regardless, this limitation is quite common in the research world and researchers are obligated to take the answers as truthful unless there is apparent deception. Such apparent deception was the reason that 15 participants were removed from the initial sample ( $N = 423$ ) and excluded from the final dataset.

It must also be mentioned that, when selecting the scales both the criterion of scale's length and Chronbach's  $\alpha$  were considered, and the selected scales were amongst the shortest but most validated scales. Perhaps future search could limit the length by identifying other shortest validated scales or by limiting the number of included factors. However, for the present project this was not an option, as the target was to develop a collective anti-bullying model. Therefore, the selected factors had to be examined with the same sample, which is also one of the reasons that this project differentiates from past research.

The sample's age distribution presented another limitation. For this project, there was no age limitation and ethical approval had been granted for inclusion of participants younger than 16 years old. However, the mean of participants' age was approximately 23 years old. The idea behind allowing participants of any age to complete the questionnaire was that most projects focus on school-aged children, unavoidably overlooking older individuals. Although, the term SB indicates that this form of bullying occurs at schools, nonetheless, CB does not, while SB is reported in higher education as well. Consequently, as the aim of the study was to address both

SB and CB, there could not be an exclusion criterion in terms of age. Some might think that the data are not valid because many participants had to use their memories to address the questions; however, if we are to accept that SB is severe enough to affect individuals in their later life, then it must be accepted that the SB memories are not easily forgotten, therefore, validating participants' responses. Others might say that SB nowadays differentiates from SB in the past; however, this differentiation mainly occurs in the used means that SB perpetrators chose to victimise others and the means that SB victims experience victimisation. In addition, this was addressed by asking participants directly how they perpetrated and how they were victimised.

Moreover, it has to be accounted that some participants might have reported their bullying experiences retrospectively, while age was reported in terms of the survey completion time. This could have affected the results, as more normal distributed sample in terms of age could have provided more insightful information, such as a direct SB comparison between various age groups, including much older individuals. Although, still there were significant findings, indicating that reporting incidents from participants' memories did not play a role. In addition, most of participants were at university level, and it cannot be known whether the bullying experiences referred to the university and not earlier school years. Future research, will clarify this by specifying the age related question and perhaps adding a question of at what age participants were involved in bullying.

Another limitation accompanying this study was the choice of words that formed some of the questions. For example, when victimisation was examined it was found that approximately 63% of the victims had attempted to protect another victim, and approximately 96% of those that made the attempt succeeded or sort of succeeded in stopping the victimisation of the other victim. However, participants were not

asked to also clarify what means they used to interfere when witnessed the bullying incidents, which could be perceived as vagueness in terms of how the questions were contracted. Future research could address this, by including a direct question to provide insightful information that could assist schools and policy makers, into giving the right advice in terms of the correct and successful peer intervention ways.

Likewise, some may consider a limitation the fact that Google Forms was preferred for data collection instead of other platforms such as Qualtrics. However, it has to be mentioned that there was positive feedback received from the pilot sample for Forms while some found Qualtrics more “boring”. Consequently, as the survey was quite lengthy, a more presentable and more easily used data collection platform had to be used in order to maintain participants’ interest and attention. Choosing Forms created another minor issue and that was the way that the data was downloaded for analysis. Google forms does not give the option to download the data in an SPSS file; consequently, the data had to be coded in Excel and then inputted in SPSS for further analysis. Although the coding was carefully conducted and although the data was rechecked for any inconsistencies, the possibility of minor mistakes occurring cannot be excluded. Nonetheless, such mistakes if indeed happened, are minimal and might have affected only the reported prevalence rates, of the variables that were not analysed with inferential statistics. In terms of inferential statistics, Google Forms downloaded data from some nominal variables such as “who victimised you the most” but did not split into automatic categories. Consequently, preventing further inferential analysis, which could have strengthened the findings from this study. Regardless, data from such nominal variables were also included in the results in the form of descriptive statistics.

Staying in the same area of tools, another possible limitation is the chosen scales and the rest of the constructed questions. Although the scales were carefully selected to address the aim of the project, nonetheless, the tools were not 100% tailored to this project; for example, some scales were developed for use with school-aged children only. Therefore, some of the scales' items were conservatively reworded in order to fit older participants and not only school-aged children. Additionally, the scales were selected cautiously, under four main criteria, reliability, validity, relativity and length. The latter criterion, led to choosing scales with Cronbach's  $\alpha$  less than .70 in some cases, such as the self-control measurement tool. Perhaps, with a shorter survey and more reliable scales, the findings of this study could have added to the reliability of the anti-bullying model. Nonetheless, as participants might have responded to questions retrospectively, it could be assumed that even the scales tailored for school-aged individuals were appropriate for this sample.

Another additional possible limitation may have occurred from the various analysis tools used for this study. In particular, some descriptive statistics were reported as calculated by Google Forms and Google Spreadsheets. To address this limitation, the Google Forms descriptive statistics were compared to the SPSS calculated descriptive statistics, in order to examine for reliability and consistency.

It is also noted that the use of nine validated scales, plus two scales on SB and CB, adding the background factors and the family/friends related factors, increase the probability of one or more of the significant findings being due to chance. However, there is no telling if this indeed occurred. Consequently, suggesting to future research that a much larger sample would assist in avoiding such issues. In addition, indeed the sample size of the study is not as large as in other studies; however, as the current

study functions as the stepping stone for the subsequent projects, the sample is large enough for the initial and experimental anti-bullying model, that will be improved in the future with the replication of the study and a more robust sample.

In terms of analysis, and although normality was tested but not taken into account in some occasions, nonetheless, most of the statistical tests that were used were non-parametric, and where parametric tests were used, results were validated with non-parametric tests. In addition, a RIN transformation (logarithmic) was attempted to test whether the non-normally distributed variables presented significant changes and thus effects on results, however, no such effect was found, while it must be taken into account that variable transformations also pose risks for biased results. In addition, in some regression models the studentised residuals showed some outliers that could have affected the results of the regression models. However, prior to finalising the analysis, outliers had been removed in various occasions to test for effects or difference in results, but the results were the same. Suggesting that the number of outliers were not enough to affect the inferential statistics results.

The last limitation relates to the resulted anti-bullying model. Although inferences are commonly drawn from descriptive statistics, nonetheless, the variables that were selectively excluded from the inferential analysis should be studied again in the future for more validated inferences. Moreover, some suggestions are not very specific. For example, there were significant findings that atheists are more prone to victimisation; however, researchers cannot advise individuals to become religious in order to protect themselves from bullying. It would simply be highly inappropriate; consequently, the suggestion was broader and young or older individuals were advised to become members of a group, in order to have some support from their peers. However, these individuals might already be members of a group.

Subsequently, the only way to make the suggestions more specific would be through testing of the model, which is also a near future target with a sequenced project.

Finally, in terms of suggestions for future research, it is worth mentioning that an attempt to understand bullying from a different perspective, such as taking into account the narrative theory (see Ioannou, 2006; Ioannou, Canter, Youngs & Synnott, 2015; Ioannou, Canter & Youngs, 2016) and exploring the victims' and offenders' characteristics and understand their behaviour, could prove insightful. The narrative theory has been successfully applied to serious crimes (see for example Yaneva, Ioannou, Hammond & Synnott, 2018) and to crimes related to young offenders (see Ioannou, Synnott, Low & Tzani-Pepelasi, 2018); therefore, could assist researchers to understand how bullying victims and perpetrators perceive themselves and their actions.

Furthermore, future research could explore bullying with considerations of Developmental Criminology that focuses on the relationship of offending and the changes over time in individuals and their circumstances (France & Homel, 2015; Welsh & Farrington, 2013; Hughes, 2015; Casey, 2011). And this is supported by the similarities between early criminal behaviour and bullying behaviour, such as the onset age for offending and bullying which is typically between ages eight and 14 (Piquero, 2013; Shukla, 2012; Pillay & Willows, 2015).

## **19.2. Implications**

The aim of this study was examine the risk and preventative factors relate to SB and CB, some of these factors have been examined by past studies in depth and some have been neglected. Therefore, the target was to re-examine the factors that had been indicated as related to SB and CB and explore the ones that had been neglected, all with the same sample. The reason behind this in depth examination or

exploration was the objective to develop an anti-bullying model that could be used freely at schools and other educational organisations. This model was developed in such a way that incorporates suggestions for both SB and CB whilst taking into account both victimisation and perpetration.

In most instances academics, researchers, reviewers, and other prestigious individuals that relate to research would ask the question:

*How is your study different to other studies and what is the uniqueness of it?*

To this question, the researcher would respond by stating the various ways that this three-year project is similar to previous projects and how this similarity contributes to stopping or decreasing the rates of bullying. First, the study included nine personality/behavioural related factors/predictors that have been examined in the past in similar studies (e.g. empathy, aggression, guilt, etc.). By doing this, the findings contribute in clearing the differences found amongst the various studies and giving a direction of how these factors function with a more broad sample instead of only school-aged children. Consequently, the findings can be used to direct future researchers in selecting the factors that in this study appeared significant and potentially use the findings to build their own anti-bullying strategies.

Second, the study incorporated socio-demographic information as background factors, such as age, gender, sexual orientation, etc. that have been indeed studied previously. However, there are inconsistencies or disagreements in previous research, therefore, once more the findings from this study assist in clearing such disagreements. Moreover, from these background variables, some had either been neglected or not studied extensively. Such an example was religion that the past literature appeared limited and the findings from this research proved that religion is both related to bullying and functions as a predictor. Thus, this inclusion and the

resulted findings can assist other researchers into incorporating these variables into their own projects and re-examine the neglected factors.

Third, family and friend related factors were examined; such as parental monitoring, communication, sibling teasing, friends' support etc.; some of the factors such as parenting style had been extensively studied but only in relation to SB. Therefore, by exploring the relationships and effects of these variables both for SB and CB, the findings have covered related gaps in literature while also provided a comparison of how these factors function for SB and CB.

Fourth, the macro-aim of the project was to develop an anti-bullying model as similarly was targeted by many before this study and many more after this study. However, it could be supported that there is uniqueness in this project and its findings; and that is the inclusion of both SB and CB into the model, whilst taking into account both victimisation and perpetration. It would be impossible to support that there is no other such project or that the model has no flaws. However, despite the various flaws that may exist, the model can help educators, schools, governmental departments of education and parents to focus on the aspects that have shown significant relationships or predictions for SB, likewise for CB, and collectively for both bullying forms. This was achieved by the comparison between SB and CB, which resulted by analysing the same factors/predictors with both forms, and by collecting the related data with the same sample. Thereafter, the model was split into levels starting with the predictors as the most important aspects, followed by the factors that showed significant relationships to the two forms of bullying, the differences and last the inferences resulting from the descriptive statistics. Consequently, it could be supported that the resulted model can assist the above-

mentioned professionals to focus first on the most important aspects whilst accounting for the less important aspects.

Accordingly, it can be supported that the most important implication of this study is the model itself that with or without further examination can be tested freely in various educational facilities in order to attempt a decrease of bullying rates and even tackling. However, it must be mentioned that the model was not divided in levels based only on the importance of the according variables, but also to indicate which levels need further exploration and validation. For example, the last level that was based on the descriptive statistics will unquestionably require validation. Regardless, the level still presents important information that can be used by the educational organisations as warnings rather than certainties while signifying the importance for further examination.

In general aspects, the findings from this project provide valuable information as an in-depth analysis was conducted, while numerous aspects were found significant; such as the fact that both victims and perpetrators of both bullying forms reported that it was girls of the same age/same class that were victimised the most and perpetrated the most in both bullying forms. This piece of information is perhaps a very important finding as it deactivates the power imbalance at least in terms of age, of the bullying definition, as had been identified by Olweus and has been used repeatedly in the related research. Consequently, identifying that perhaps the definition requires re-assessment, modification, and adaptation to the new ways that bullying is nowadays expressed. Amongst the not so new expressed ways but relatively new in comparison to SB, is CB; for which in many studies the Olweus terminology is modified and used to address and define this bullying type. However, with CB there are two identified problems that perhaps misled participants of related

studies. One is indeed the power imbalance that does not exist in cyberspace, at least not in terms age or physical strength; regardless, knowledge and experience of using the cyberspace could be considered as power imbalance. Secondly, is the repetition aspect that must be re-assessed, as in CB both parties consider one harmful act as CB. Consequently, by identifying the absence of power imbalance in SB and CB and by findings indicating that once or twice is considered bullying it is suggested that the current definitions are not efficient or sufficient to define SB or CB.

Lastly, the final implication of this study like in many other studies is the aspiration that the developed model, the findings and the inferences will be used in education in order to decrease the bullying rates, will be used by parents in order to protect their youngsters from bullying involvement and by youngsters themselves in order to make better decisions when it comes to either SB or CB involvement.

## ***Chapter 20 – Thesis General Conclusion***

To conclude this thesis, it is established that bullying is not a newly founded phenomenon; it exists since the foundation of the first educational facilities and organisations. However, by studying past literature, over the last three years, adding the results from this project, it is concluded that bullying in general is a very complicated phenomenon with numerous severe long lasting consequences and a variety of factors that impact the rates and the means of this continuously evolving phenomenon. It is also determined that, there are many gaps that require more attention from research and many flaws that need updating and moderation, in order to conduct valid and consistent research. Such an example is the terminology of bullying in general that does not cover both SB and CB, the terminology of SB individually as well as the terminology of CB. It becomes apparent that the terminology requires updating in order to represent the new means of bullying as well as to express the perceptions of both victims and bullies, of all ages. Moreover, more research is necessary to further explore the overlapping effect of SB and CB; this study found indications that CB is frequently an outcome of SB and often the opposite. By identifying the level of this overlapping effect, more anti-bullying strategies could be developed with the ability to tackle both forms by utilising with common means.

Another general aspect that must be noted is the individualistic approach of schools and educational organisations, when attempting to form intervention and prevention means. Understandably, not all schools have the means to purchase expensive anti-bullying programs or train the staff, while the anti-bullying education incorporated in the curriculums merely suffices. Ministries of education, all-over the world should prioritise bullying of all forms, and realise the absolute necessity for

sufficient funding and incorporation of successful anti-bullying strategies and education, regardless of the cost. However, scientists should also allow for such programs to be utilised freely, when schools cannot financially support the cost of the programmes. In essence, revealing the factors that increase or decrease SB and CB and building models, is meaningless, if the findings are not put into use freely. Moreover, such findings should be used by educational organisations in collaboration with parents and youngsters, as the fight to cease bullying behaviour cannot be successful if it is an individualistic attempt. Such collaboration could also eventually decrease the severity of bullying consequences, such as depression, anxiety, social withdrawal, aggression etc.

In terms of which form is worst and requires more attention, it is concluded that both forms must be treated equally as both result in severe consequences, while for both the escalation of such events could even lead to illegal acts such as physical attacks, repetitive harassment and even promoting suicide as a solution for escaping victimisation. As for which form is more frequent or the rates are higher, it is concluded that SB indicates higher prevalence rates. Nonetheless, as many participants supported that there was interaction of such nature in online settings, while such incidents had been fuelled by online interaction, it is assumed that CB nowadays has become part of SB. Therefore, it is not clear where the boundaries of SB stop and where CB begins; although, it is clarified that CB means are more broad and intense.

To summarise, this project suggests that if youngsters are motivated to join community or religious groups with ethical standards that promote wellbeing, resilience and care, they have more chances of being protected from SB and CB victimisation. Parents should also regulate children's behaviour at home and promote

a healthy relationship between siblings, whilst appropriately interfering when sibling teasing occurs, as sibling teasing can be one of the leading reasons for SB and CB victimisation. Parents should also ensure healthy communication with their children, establish a friendly relationship, monitor their children's friends and get to know these friends, in order to safeguard youngsters from both SB and CB victimisation. Finally, parents and families in collaboration with the schools, must support victims and provide advice, but above all, they must ensure that victims do not judge themselves negatively of self-blame for their victimisation; particularly for SB, as that might lead to feeling ashamed and withdraw from their peers and friendships. However, for CB it can be helpful for youngsters to evaluate their online behaviour and seek the reasons they have been targeted. It might be possible that some individuals can be CB victimised due to lack of self-control, excessive use of the media from an early age, exposure to online violence, or a general negative attitude that attracts attention, particularly if these individuals are pessimists.

In an individual level, youngsters should speak out for their victimisation and communicate their difficulties and ask for help and guidance. That way, SB and CB victims and potential victims might have a chance to find the way to increase their confidence, resolve their frustration, anger, aggression and possible hostile attitudes. They could also learn how to restrain themselves from impulsive and irrational decisions, learn how to be empathetic towards their peers without absorbing their peers' difficulties as their own, while differentiating between teasing that is a result of immature behaviour, and bullying. Society should help youngsters understand that we ought to accept others for what they are, appreciate individual differences, and respect individual preferences, that might be closer to traditional norms or more progressive. Finally, parents, schools, society and children should realise that SB and CB are

interconnected, and one could lead to the other with the possibility of the role frequently switching from victim to perpetrator and the opposite.

For SB/CB perpetration, once more, parents must be actively involved in their children's lives, by establishing a friendly relationship with the youngsters, help them build empathy towards their peers, teach them ethical values, morals and self-control, as well as train them how to restrain from impulsive decisions, such as reciprocating to victimisation with perpetration. Schools should be collaborating with parents and assist youngsters to learn healthy ways of expressing their feelings, and to find productive means to release potential aggression, instead of exhibiting such negative behaviour offline or online. The society in general, should also participate and praise perpetrators that acknowledge their mistakes, either because of maturity or guilt. Finally, peers should also be actively involved in this anti-bullying process and youngsters in general must attempt to form and maintain friendships that can provide support, a feeling of belonging and communication when in need.

Concluding, it took approximately four years of continuous research, examination of hundreds of empirical works in the area of bullying and 20 chapters of factor testing and exploration, all conducted with one purpose; to build a flexible, adaptable, informed and aggregated anti-bullying model that could address both SB and CB and tackle both victimisation and perpetration, whilst becoming available for utilisation to all schools and educational organisations. The model is built on the basis that bullying is indeed complex, influenced by psychological, sociological and environmental factors, while the term consists of both SB and CB, as well as other subtypes such as text-bullying. On the latter grounds, this project concludes that if society wants a rate reduction and successful intervention, then one inclusive model and one anti-bullying educational approach must address both forms and must give

equal attention to both victimisation and perpetration. The resulted anti-bullying model is capable of incorporating the above, flexible, as factors can be added or removed according to the needs, and it addresses both SB and CB. It is aspired that the model will be freely disseminated and utilised for bullying rate reduction, intervention and prevention, as well as for further testing and improvement. Closing this thesis, it is determined that perhaps the argument of whether CB is an individual type of bullying or part of SB, is misplaced. Perhaps, SB, CB, Text-bullying and other types are all part of negative behaviour, that being bullying in general that differentiates according to the available means and environment, as well as the preference of the type that might be influenced by age. Consequently, bullying should be addressed from a very young age to avoid escalation of such negative behaviours in the adulthood and prevent severe consequences, such as crime involvement and mental health deterioration.

**RISK AND PREVENTIVE FACTORS RELATED TO SCHOOL-BULLYING AND CYBER-BULLYING: COMPARING THE EFFECTS OF SOCIO-DEMOGRAPHIC, FAMILY ENVIRONMENT, FRIEND ENVIRONMENT, PERSONALITY AND BEHAVIOURAL FACTORS, BETWEEN SCHOOL-BULLYING AND CYBER-BULLYING**

**KALLIOPI TZANI-PEPELASI**

**A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of Doctor of Philosophy**

**VOLUME 2 OF 2**

**July 2019**

## References

- Adickes, J., Worrell, K., Klatt, C., Starks, J., Vosicky, A., & Moser, C. S. (2013). Bullying. *Journal of Occupational Therapy, Schools, and Early Intervention*, 6(1), 1-13. doi:10.1080/19411243.2013.771099.
- Agatston, P. W., Kowalski, R., & Limber, S. (2007). Students' perspectives on cyber bullying. *Journal of Adolescent Health*, 41(6), S59-S60. doi:10.1016/j.jadohealth.2007.09.003.
- Buss A. H., & Perr, M. P. (1992). *The Aggression Questionnaire. Journal of Personality and Social Psychology*, 63, 452-459.
- Ahmed, E., & Braithwaite, V. (2004). "what, me ashamed?" shame management and school bullying. *Journal of Research in Crime and Delinquency*, 41(3), 269-294. doi:10.1177/0022427804266547.
- Ahmed, E., & Braithwaite, V. (2012). Learning to manage shame in school bullying: Lessons for restorative justice interventions. *Critical Criminology*, 20(1), 79-97. doi:10.1007/s10612-011-9151-y.
- Ak, S., Ozdemir, Y., & Kuzucu, Y. (2015). Cyber-victimization and cyber-bullying: The mediating role of anger, don't anger me. *Computers in Human Behavior*, 49, 437. doi:10.1016/j.chb.2015.03.030.
- Alloway, T. P., Copello, E., Loesch, M., Soares, C., Soares, C., Watkins, J., . . . Ray, S. (2016). Investigating the reliability and validity of the multidimensional emotional empathy scale. *Measurement*, 90, 438-442. 10.1016/j.measurement.2016.05.014.
- Álvarez-García, D., García, T., & Núñez, J. C. (2015). Predictors of school bullying perpetration in adolescence: A systematic review. *Aggression and Violent Behavior*, 23, 126-136. doi:10.1016/j.avb.2015.05.007.

American Educational Research Association. (2013). *Prevention of bullying in schools, colleges, and universities: Research report and recommendations.*

Washington, DC: American Educational Research Association.

Ang, R. P. (2015). Adolescent cyberbullying: A review of characteristics, prevention and intervention strategies. *Aggression and Violent Behavior*, 25, 35-42.  
doi:10.1016/j.avb.2015.07.011.

Ang, R. P., & Goh, D. H. (2010). Cyberbullying among adolescents: The role of affective and cognitive empathy, and gender. *Child Psychiatry and Human Development*, 41(4), 387-397. doi:10.1007/s10578-010-0176-3.

Ang, R. P., Huan, V. S., & Florell, D. (2014). Understanding the relationship between proactive and reactive aggression, and cyberbullying across United States and Singapore adolescent samples. *Journal of Interpersonal Violence*, 29(2), 237-254. doi:10.1177/0886260513505149.

Ang, R. P., Tan, K., & Talib Mansor, A. (2011). Normative beliefs about aggression as a mediator of narcissistic exploitativeness and cyberbullying. *Journal of Interpersonal Violence*, 26(13), 2619-2634. doi:10.1177/0886260510388286.

Annerbäck, E., Sahlqvist, L., Wingren, G., Linköpings universitet, Institutionen för klinisk och experimentell medicin, Avdelningen för kliniska vetenskaper, . . . Hälsouniversitetet. (2014). A cross-sectional study of victimisation of bullying among schoolchildren in Sweden: Background factors and self-reported health complaints. *Scandinavian Journal of Public Health*, 42(3), 270-277.

Ansary, N. S., Elias, M. J., Greene, M. B., & Green, S. (2015). Best practices to address (or reduce) bullying in schools. *Phi Delta Kappan*, 97(2), 30.

- Antoniadou, N., & Kokkinos, C. M. (2015;2013;). A review of research on cyberbullying in Greece. *International Journal of Adolescence and Youth*, 20(2), 185-17. doi:10.1080/02673843.2013.778207.
- Aoki, T., Miyashita, M., Inoko, K., Kodaira, K., & Osawa, M. (2010). P01-170 - bullying and depression among children. *European Psychiatry*, 25, 379-379. doi:10.1016/S0924-9338(10)70376-X.
- Aoyama, I., Saxon, T. F., & Fearon, D. D. (2011). Internalizing problems among cyberbullying victims and moderator effects of friendship quality. *Multicultural Education & Technology Journal*, 5(2), 92-105. doi:10.1108/17504971111142637.
- Archer, J., & Southall, N. (2009). Does cost-benefit analysis or self-control predict involvement in bullying behavior by male prisoners? *Aggressive Behavior*, 35(1), 31-40. doi:10.1002/ab.20283.
- Aricak, O. T., & Ozbay, A. (2016). Investigation of the relationship between cyberbullying, cybervictimization, alexithymia and anger expression styles among adolescents. *Computers in Human Behavior*, 55, 278-285. doi:10.1016/j.chb.2015.09.015.
- Arseneault, L. (2015). Sibling bullying is associated with anxiety, depression and self-harm. *Evidence-Based Mental Health*, 18(3), 83-83. doi:10.1136/eb-2014-102017.
- Arum, R., & Beattie, I. R. (1999). High school experience and the risk of adult incarceration. *Criminology*, 37(3), 515-537. doi:10.1111/j.1745-9125.1999.tb00495.x.
- Asencio, E. K. (2013). Self-esteem, reflected appraisals, and self-views: Examining criminal and worker identities. *Social Psychology Quarterly*, 76(4), 291-313.

doi:10.1177/0190272513504222.

Aslan, S. (2011). The analysis of relationship between school bullying, perceived parenting styles and self-esteem in adolescents. *Procedia - Social and Behavioral Sciences*, 30, 1798-1800. doi:10.1016/j.sbspro.2011.10.346.

Athanasiades, C., Baldry, A. C., Kamariotis, T., Kostouli, M., & Psalti, A. (2016). The “net” of the internet: Risk factors for cyberbullying among secondary-school students in Greece. *European Journal on Criminal Policy and Research*, 22(2), 301-317. doi:10.1007/s10610-016-9303-4.

Atik, G., & Güneri, O. Y. (2013). Bullying and victimization: Predictive role of individual, parental, and academic factors. *School Psychology International*, 34(6), 658-673.

Awan, I., & Zempi, I. (2016). The affinity between online and offline anti-Muslim hate crime: Dynamics and impacts. *Aggression and Violent Behavior*, 27, 1-8. doi:10.1016/j.avb.2016.02.001.

Baker, O. E., & Tanrikulu, I. (2010). Psychological consequences of cyber bullying experiences among Turkish secondary school children. *Procedia - Social and Behavioral Sciences*, 2(2), 2771-2776. doi:10.1016/j.sbspro.2010.03.413.

Balakrishnan, V. (2015). Cyberbullying among young adults in Malaysia: The roles of gender, age and internet frequency. *Computers in Human Behavior*, 46, 149-157. doi:10.1016/j.chb.2015.01.021.

Baldry, A. C. (2004). The impact of direct and indirect bullying on the mental and physical health of Italian youngsters. *Aggressive Behavior*, 30(5), 343-355. doi:10.1002/ab.20043.

- Baldry, A. C., & Farrington, D. P. (2005). Protective factors as moderators of risk factors in adolescence bullying. *Social Psychology of Education*, 8(3), 263-284. doi:10.1007/s11218-005-5866-5.
- Bale, R. N. (1979). The Validity and Reliability of Self-Reported Data from Heroin Addicts: Mailed Questionnaires Compared with Face-to-Face Interviews, *International Journal of the Addictions*, 14:7, 993-1000, DOI: 10.3109/10826087909073942.
- Ball, H. A., Arseneault, L., Taylor, A., Maughan, B., Caspi, A., & Moffit, T. E. (2008). Genetic and environmental influences on victims, bullies and bully-victims in childhood. *Journal of Child Psychology and Psychiatry*, 49(1), 104-112. doi:10.1111/j.1469-7610.2007.01821.x.
- Baly, A. C. (2004). The impact of direct and indirect bullying on the mental and physical health of Italian youngsters. *Aggressive Behavior*, 30(5), 343-355. doi:10.1002/ab.20043.
- Baly, M. W., Cornell, D. G., & Lovegrove, P. (2014). a longitudinal investigation of self- and peer reports of bullying victimization across middle school. *Psychology in the Schools*, 51(3), 217-240. doi:10.1002/pits.21747.
- Barlett, C., & Coyne, S. M. (2014). A meta-analysis of sex differences in cyberbullying behavior: The moderating role of age: Sex differences in cyberbullying. *Aggressive Behavior*, 40(5), 474-488. doi:10.1002/ab.21555.
- Barlińska, J., Szuster, A., & Winiewski, M. (2013). Cyberbullying among adolescent bystanders: Role of the communication medium, form of violence, and empathy. *Journal of Community & Applied Social Psychology*, 23(1), 37-51. doi:10.1002/casp.2137.

- Bates, D., Mächler, M., Bolker, B., & Walker, S. (2014). Fitting linear mixed-effects models using lme4. *arXiv preprint arXiv:1406.5823*.
- Batsche, G.M. & Knoff, H.M. (1994 ). Bullies and their victims: Understanding a pervasive problem in schools. *School Psychology Review*, 23(2), 165-174.
- Bauman, S. (2013). Cyberbullying: What does research tell us? *Theory into Practice*, 52(4), 249-256. doi:10.1080/00405841.2013.829727.
- Bauman, S., & Baldasare, A. (2015). Cyber aggression among college students: Demographic differences, predictors of distress, and the role of the university. *Journal of College Student Development*, 56(4), 317-330.
- Bauman, S., & Newman, M. L. (2013). Testing assumptions about cyberbullying: Perceived distress associated with acts of conventional and cyber bullying. *Psychology of Violence*, 3(1), 27-38. doi:10.1037/a0029867.
- Bauman, S., & Pero, H. (2011). Bullying and cyberbullying among deaf students and their hearing peers: An exploratory study. *Journal of Deaf Studies and Deaf Education*, 16(2), 236-253. doi:10.1093/deafed/enq043.
- Bauman, S., Toomey, R. B., & Walker, J. L. (2013). Associations among bullying, cyberbullying, and suicide in high school students. *Journal of Adolescence*, 36(2), 341-350. doi:10.1016/j.adolescence.2012.12.001.
- Bayraktar, F., Machackova, H., Dedkova, L., Cerna, A., & Ševčíková, A. (2015;2014;). Cyberbullying: The discriminant factors among cyberbullies, cybervictims, and cyberbully-victims in a Czech adolescent sample. *Journal of Interpersonal Violence*, 30(18), 3192-3216. doi:10.1177/0886260514555006.
- Becker-Blease, K. A., & Freyd, J. J. (2005). Beyond PTSD: An evolving relationship between trauma theory and family violence research. *Journal of Interpersonal Violence*, 20(4), 403-411. doi:10.1177/0886260504269485.

Beckman, L., Hagquist, C., Hellstrom, L., Karlstads universitet, Fakulteten för  
humaniora och samhällsvetenskap (from 2013), & Centrum för forskning om  
barns och ungdomars psykiska hälsa. (2013). Discrepant gender patterns for  
cyberbullying and traditional bullying - an analysis of swedish adolescent  
data. *Computers in Human Behavior*, 29(5), 1896.  
doi:10.1016/j.chb.2013.03.010.

Bender, K. (2010). Why do some maltreated youth become juvenile offenders?  
*Children and Youth Services Review*, 32(3), 466-473.  
doi:10.1016/j.childyouth.2009.10.022.

Bennett, T., Holloway, K., & Farrington, D. (2008). The statistical association  
between drug misuse and crime: A meta-analysis. *Aggression and Violent  
Behavior*, 13(2), 107-118. doi:10.1016/j.avb.2008.02.001.

Benson, V., Saridakis, G., & Tennakoon, H. (2015). Purpose of social networking use  
and victimisation: Are there any differences between university students and  
those not in HE? *Computers in Human Behavior*, 51, 867-872.  
doi:10.1016/j.chb.2014.11.034.

Bergbom, B., Vartia-Vaananen, M., & Kinnunen, U. (2015). Immigrants and natives  
at work: Exposure to workplace bullying. *Employee Relations*, 37(2), 158-175.  
doi:10.1108/ER-09-2014-0101.

Bergelson, V. (2013). The duty to protect the victim – or the duty to suffer  
punishment? *Law and Philosophy*, 32(2), 199-215. doi:10.1007/s10982-012-  
9160-3.

Berkowitz, R., & Benbenishty, R. (2012). Perceptions of teachers' support, safety,  
and absence from school because of fear among victims, bullies, and Bully-

- Victims. *American Journal of Orthopsychiatry*, 82(1), 67-74.  
doi:10.1111/j.1939-0025.2011.01132.x.
- Berlan, E. D., Corliss, H. L., Field, A. E., Goodman, E., & Bryn Austin, S. (2010). Sexual orientation and bullying among adolescents in the growing up today study. *Journal of Adolescent Health*, 46(4), 366-371.  
doi:10.1016/j.jadohealth.2009.10.015.
- Berne, S., Frisén, A., Kling, J., Department of Psychology, Psykologiska institutionen, Samhällsvetenskapliga fakulteten, . . . Göteborgs universitet. (2014). Appearance- related cyberbullying: A qualitative investigation of characteristics, content, reasons, and effects. *Body Image*, 11(4), 527-533.  
doi:10.1016/j.bodyim.2014.08.006.
- Berry, K., & Adams, T. E. (2016). Family bullies. *Journal of Family Communication*, 16(1), 51-63. doi:10.1080/15267431.2015.1111217
- Bertolotti, T., & Magnani, L. (2013). A philosophical and evolutionary approach to cyber-bullying: Social networks and the disruption of sub-moralities. *Ethics and Information Technology*, 15(4), 285-299. doi:10.1007/s10676-013-9324-3.
- Besag, V. E. (1989). *Bullies and victims in schools. A guide to understanding and management*. England: Open University Press.
- Bickmore, K. (2011). Policies and programming for safer schools: Are “Anti-bullying” approaches impeding education for peacebuilding? *Educational Policy*, 25(4), 648-687. doi:10.1177/0895904810374849.
- Birkett, M., Espelage, D. L., & Koenig, B. (2009). LGB and questioning students in schools: The moderating effects of homophobic bullying and school climate

- on negative outcomes. *Journal of Youth and Adolescence*, 38(7), 989-1000. doi:10.1007/s10964-008-9389-1.
- Bishop, H. N., & Casida, H. (2011). Preventing bullying and harassment of sexual minority students in schools. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 84(4), 134. doi:10.1080/00098655.2011.564975.
- Bjereld, Y., Daneback, K., & Petzold, M. (2015). Differences in prevalence of bullying victimization between native and immigrant children in the Nordic countries: A parent-reported serial cross-sectional study: Bullying among native and immigrant children. *Child: Care, Health and Development*, 41(4), 593-599. doi:10.1111/cch.12184.
- Black, S., Weinles, D., & Washington, E. (2010). Victim strategies to stop bullying. *Youth Violence and Juvenile Justice*, 8(2), 138-147. doi:10.1177/1541204009349401.
- Bollmer, J. M., Milich, R., Harris, M. J., & Maras, M. A. (2005). A friend in need: The role of friendship quality as a protective factor in peer victimization and bullying. *Journal of Interpersonal Violence*, 20(6), 701-712. doi:10.1177/0886260504272897.
- Bonansinga, D. (2015). the role of public discourse in threat framing: The case of islamophobia in Czech republic. *CES Working Papers*, 7(4), 824-839.
- Borg, M. G. (1998). The emotional reactions of school bullies and their victims. *Educational Psychology*, 18(4), 433-444. doi:10.1080/0144341980180405.
- Borowsky, I. W., Taliaferro, L. A., & McMorris, B. J. (2013). Suicidal thinking and behavior among youth involved in verbal and social bullying: Risk and protective factors. *The Journal of Adolescent Health: Official Publication of*

*the Society for Adolescent Medicine*, 53(1 Suppl), S4.

doi:10.1016/j.jadohealth.2012.10.280.

Bosworth K, Espelage D. Teen Conflict Survey. Bloomington, IN: Center for

Adolescent Studies, Indiana University, 1995. (Unpublished).

Bosworth, K., Espelage, D. L., & Simon, T. R. (1999). Factors associated with

bullying behavior in middle school students. *The Journal of Early*

*Adolescence*, 19(3), 341-362. doi:10.1177/0272431699019003003.

Boulton, M. J., & Hawker, D. S. (1997). Non-physical forms of bullying among

school pupils: A cause for concern. *Health Education*, 97(2), 61-64.

doi:10.1108/09654289710158393.

Boulton, M. J., Hardcastle, K., Down, J., Fowles, J., & Simmonds, J. A. (2014). A

comparison of preservice teachers' responses to cyber versus traditional

bullying scenarios: Similarities and differences and implications for

practice. *Journal of Teacher Education*, 65(2), 145-155.

doi:10.1177/0022487113511496.

Boulton, M. J., Trueman, M., & Flemington, I. (2002). Associations between

secondary school pupils' definitions of bullying, attitudes towards bullying,

and tendencies to engage in bullying: Age and sex differences. *Educational*

*Studies*, 28(4), 353-370. doi:10.1080/0305569022000042390.

Bourke, S., & Burgman, I. (2010). Coping with bullying in Australian schools: How

children with disabilities experience support from friends, parents and

teachers. *Disability & Society*, 25(3), 359-371.

doi:10.1080/09687591003701264.

Bowes, L., Maughan, B., Caspi, A., Moffitt, T. E., & Arseneault, L. (2010). Families

promote emotional and behavioural resilience to bullying: Evidence of an

- environmental effect. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 51(7), 809. doi:10.1111/j.1469-7610.2010.02216.x.
- Bradshaw, C. P. (2013). Preventing bullying through positive behavioral interventions and supports (PBIS): A multitiered approach to prevention and integration. *Theory into Practice*, 52(4), 288-295. doi:10.1080/00405841.2013.829732.
- Bradshaw, C. P., Waasdorp, T. E., & Johnson, S. L. (2015;2014;). Overlapping verbal, relational, physical, and electronic forms of bullying in adolescence: Influence of school context. *Journal of Clinical Child & Adolescent Psychology*, 44(3), 494-15. doi:10.1080/15374416.2014.893516.
- Brewer, G., & Kerslake, J. (2015). Cyberbullying, self-esteem, empathy and loneliness. *Computers in Human Behavior*, 48, 255-260. doi:10.1016/j.chb.2015.01.073.
- Brito, C. C., & Oliveira, M. T. (2013). Bullying and self-esteem in adolescents from public schools. *Jornal De Pediatria*, 89(6), 601-607. doi:10.1016/j.jped.2013.04.001.
- Brody, N., & Vangelisti, A. L. (2016). Bystander intervention in cyberbullying. *Communication Monographs*, 83(1), 94-119. doi:10.1080/03637751.2015.1044256.
- Brown, J. R., Aalsma, M. C., & Ott, M. A. (2013). The experiences of parents who report youth bullying victimization to school officials. *Journal of Interpersonal Violence*, 28(3), 494-518. doi:10.1177/0886260512455513.
- Brunstein Klomek, A., Marrocco, F., Kleinman, M., Schonfeld, I. S., & Gould, M. S. (2007). Bullying, depression, and suicidality in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(1), 40-49. doi:10.1097/01.chi.0000242237.84925.18.

Bryce, J., & Fraser, J. (2013). "It's common sense that it's wrong": Young peoples' perceptions and experiences of cyberbullying. *Cyberpsychology, Behavior and Social Networking*, 16, 783-787.

Bryce, J., & Fraser, J. (2014). Risk perceptions, disclosure of personal information and trust in young peoples' online interactions. *Computers in Human Behaviour*, 30, 299-306.

Bulbulia, J., Osborne, D., & Sibley, C. G. (2013). Moral foundations predict religious orientations in new zealand: E80224. *PLoS One*, 8(12) doi:10.1371/journal.pone.0080224.

BullyingStatistics.Org. (2015). *School Bullying Statistics*. Retrieved from <http://www.bullyingstatistics.org/content/school-bullying-statistics.html>.

Burns, S., & Roberts, L. (2013). Applying the theory of planned behaviour to predicting online safety behaviour. *Crime Prevention and Community Safety*, 15(1), 48-64. doi:10.1057/cpcs.2012.13.

Burns, S., Maycock, B., Cross, D., & Brown, G. (2008). The power of peers: Why some students bully others to conform. *Qualitative Health Research*, 18(12), 1704-1716. doi:10.1177/1049732308325865.

Burton, K. A., Florell, D., & Wygant, D. B. (2013). The role of peer attachment and normative beliefs about aggression on traditional bullying and cyberbullying: Peer attachment, aggression, and cyberbullying. *Psychology in the Schools*, 50(2), 103-115. doi:10.1002/pits.21663.

Buss, A.H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology*, 63, 452-459.

Byrne, H., Dooley, B., Fitzgerald, A., & Dolphin, L. (2016). Adolescents' definitions of bullying: The contribution of age, gender, and experience of bullying.

- European Journal of Psychology of Education*, 31(3), 403-418.  
doi:10.1007/s10212-015-0271-8.
- Calvete, E., Orue, I., & Gámez-Guadix, M. (2016). Cyberbullying victimization and depression in adolescents: The mediating role of body image and cognitive schemas in a one-year prospective study. *European Journal on Criminal Policy and Research*, 22(2), 271-284. doi:10.1007/s10610-015-9292-8.
- Cambell, M.A., Spears, B., Slee, P., Kift, S., & Butler, D. (2011, April). 'The prevalence of cyberbullying in Australia'. *5th World conference and IV Iberoamerican congress on violence in school. Investigations, interventions, evaluations and public policies Mendoza, Argentina*.
- Camodeca, M., & Goossens, F. A. (2005). Children's opinions on effective strategies to cope with bullying: The importance of bullying role and perspective. *Educational Research*, 47(1), 93-105. doi:10.1080/0013188042000337587.
- Campbell, M. A., Slee, P. T., Spears, B., Butler, D., & Kift, S. (2013). Do cyberbullies suffer too? Cyberbullies' perceptions of the harm they cause to others and to their own mental health. *School Psychology International*, 34(6), 613-629. doi:10.1177/0143034313479698.
- Cankaya, I. H., & Tan, C. (2011). Effect of cyber bullying on the distrust levels of preservice teachers: Considering internet addiction as a mediating variable. *Procedia Computer Science*, 3, 1353-1360. doi:10.1016/j.procs.2011.01.015.
- Caravita, S. C. S., Gini, G., & Pozzoli, T. (2012). Main and moderated effects of moral cognition and status on bullying and defending: Morality and bullying: Moderations by status. *Aggressive Behavior*, 38(6), 456-468.  
doi:10.1002/ab.21447.

- Carbone-Lopez, K., Esbensen, F., & Brick, B. T. (2010). Correlates and consequences of peer victimization: Gender differences in direct and indirect forms of bullying. *Youth Violence and Juvenile Justice*, 8(4), 332-350.  
doi:10.1177/1541204010362954.
- Carter, M. A. (2013). Protecting oneself from cyber bullying on social media sites – a study of undergraduate students. *Procedia - Social and Behavioral Sciences*, 93, 1229-1235. doi:10.1016/j.sbspro.2013.10.020.
- Caruso, D. R., & Mayer, J. D. (1998). A Measure of Emotional Empathy for Adolescents and Adults. *Unpublished Manuscript*.
- Casas, J. A., Del Rey, R., & Ortega-Ruiz, R. (2013). Bullying and cyberbullying: Convergent doi:10.1016/j.chb.2012.11.015.
- Casey, S. (2011). Understanding young offenders: Developmental criminology. The Open Criminology Journal, 4(1), 13-22. doi:10.2174/1874917801104010013.
- Cassidy, W., Brown, K., & Jackson, M. (2012). “Making kind cool”: Parents' suggestions for preventing cyber bullying and fostering cyber kindness. *Journal of Educational Computing Research*, 46(4), 415-436.  
doi:10.2190/EC.46.4.f.
- Cassidy, W., Jackson, M., & Brown, K. N. (2009). Sticks and stones can break my bones, but how can pixels hurt me?: Students' experiences with cyberbullying. *School Psychology International*, 30(4), 383-402.  
doi:10.1177/0143034309106948.
- Catanzaro, M. F. (2011). Indirect aggression, bullying and female teen victimization: A literature review. *Pastoral Care in Education*, 29(2), 83-101.  
doi:10.1080/02643944.2011.573495.

- Cénat, J. M., Blais, M., Hébert, M., Lavoie, F., & Guerrier, M. (2015). Correlates of bullying in Quebec high school students: The vulnerability of sexual-minority youth. *Journal of Affective Disorders*, 183, 315.
- Cénat, J. M., Hébert, M., Blais, M., Lavoie, F., Guerrier, M., & Derivois, D. (2014). Cyberbullying, psychological distress and self-esteem among youth in Quebec schools. *Journal of Affective Disorders*, 169, 7-9.  
doi:10.1016/j.jad.2014.07.019.
- Cesaroni, C., Downing, S., & Alvi, S. (2012). Bullying enters the 21st century? Turning a critical eye to cyber-bullying research. *Youth Justice*, 12(3), 199-211. doi:10.1177/1473225412459837.
- Çetin, B., Yaman, E., & Peker, A. (2011). Cyber victim and bullying scale: A study of validity and reliability. *Computers & Education*, 57(4), 2261-2271.  
doi:10.1016/j.compedu.2011.06.014.
- Chan, S. F., & La Greca, A. M. (2016). Cyber victimization and aggression: Are they linked with adolescent smoking and drinking? *Child & Youth Care Forum*, 45(1), 47-63. doi:10.1007/s10566-015-9318-x.
- Chang, F., Chiu, C., Miao, N., Chen, P., Lee, C., Chiang, J., & Pan, Y. (2015). The relationship between parental mediation and Internet addiction among adolescents, and the association with cyberbullying and depression. *Comprehensive Psychiatry*, 57, 21-28. doi:10.1016/j.comppsych.2014.11.013.
- Chang, F., Lee, C., Chiu, C., Hsi, W., Huang, T., & Pan, Y. (2013). Relationships among cyberbullying, school bullying, and mental health in Taiwanese adolescents. *Journal of School Health*, 83(6), 454-462.  
doi:10.1111/josh.12050.

- Chaux, E., & Castellanos, M. (2015;2014;). Money and age in schools: Bullying and power imbalances. *Aggressive Behavior, 41*(3), 280-n/a. doi:10.1002/ab.21558.
- Chen, V. H. H., & Chng, G. S. (2016). Active and restrictive parental mediation over time: Effects on youths' self-regulatory competencies and impulsivity. *Computers & Education, 98*, 206-212. doi:10.1016/j.compedu.2016.03.012.
- Christensen, L. L., Fraynt, R. J., Neece, C. L., & Baker, B. L. (2012). Bullying adolescents with intellectual disability. *Journal of Mental Health Research in Intellectual Disabilities, 5*(1), 49. doi:10.1080/19315864.2011.637660.
- Chu, B. C., Hoffman, L., Johns, A., Reyes-Portillo, J., & Hansford, A. (2013). Transdiagnostic behaviour therapy for bullying-related anxiety and depression: Initial development and pilot study. *Cognitive and Behavioral Practice, doi:10.1016/j.cbpra.2014.06.007.*
- Chui, W. H., & Chan, H. C. O. (2013). Association between self-control and school bullying behaviors among Macanese adolescents. *Child Abuse & Neglect, 37*(4), 237-242. doi:10.1016/j.chabu.2012.12.003.
- Chui, W. H., & Chan, H. C. O. (2015;2014;). Self-control, school bullying perpetration, and victimization among Macanese adolescents. *Journal of Child and Family Studies, 24*(6), 1751-1761. doi:10.1007/s10826-014-9979-3.
- Ciucci, E., & Baroncel A. (2014). The emotional core of bullying: Further evidences of the role of callous-unemotional traits and empathy. *Personality and Individual Differences, 67*, 69-74. doi:10.1016/j.paid.2013.09.033.
- Cleland, J. (2014). Racism, football fans, and online message boards: How social media has added a new dimension to racist discourse in English football. *Journal of Sport & Social Issues, 38*(5), 415-431.

- Cluver, L., Bowes, L., & Gardner, F. (2010). Risk and protective factors for bullying victimization among AIDS-affected and vulnerable children in South Africa. *Child Abuse & Neglect*, 34(10), 793-803. doi:10.1016/j.chab.2010.04.002.
- Cohen, J. (1988). *Statistical power analysis for the behavior sciences* (2nd ed.). St. Paul, MN: West Publishing Company.
- Cohen, T. R., Wolf, S. T., Panter, A. T., & Insko, C. A. (2011). Introducing the GASP scale: A new measure of guilt and shame proneness. *Journal of Personality and Social Psychology*, 100, 947-966. doi: 10.1037/a0022641 .
- Cole-Lewis, Y. C., Gipson, P. Y., Opperman, K. J., Arango, A., & King, C. A. (2016). Protective role of religious involvement against depression and suicidal ideation among youth with interpersonal problems. *Journal of Religion and Health*, 55(4), 1172-1188. doi:10.1007/s10943-016-0194-y.
- Compton, L., Campbell, M. A., & Mergler, A. (2014). Teacher, parent and student perceptions of the motives of cyberbullies. *Social Psychology of Education*, 17(3), 383-400. doi:10.1007/s11218-014-9254-x.
- Connell, N. M., Schell-Busey, N. M., Pearce, A. N., & Negro, P. (2014). Badgrlz? exploring sex differences in cyberbullying behaviors. *Youth Violence and Juvenile Justice*, 12(3), 209-228. doi:10.1177/1541204013503889.
- Connors-Burrow, N. A., Johnson, D. L., Whiteside-Mansell, L., Mckelvey, L., & Gargus, R. A. (2009). Adults matter: Protecting children from the negative impacts of bullying. *Psychology in the Schools*, 46(7), 593-604. doi:10.1002/pits.20400.
- Connolly, E. J., & Beaver, K. M. (2014). Considering the genetic and environmental overlap between bullying victimization, delinquency, and symptoms of

- Depression/Anxiety. *Journal of Interpersonal Violence*.  
doi:10.1177/0886260514564158.
- Conover, W. J., & Iman, R. L. (1981). Rank transformations as a bridge between parametric and nonparametric statistics. *The American Statistician*, 35(3), 124-129.
- Cooper, R. M., & Blumenfeld, W. J. (2012). Responses to cyberbullying: A descriptive analysis of the frequency of and impact on LGBT and allied youth. *Journal of LGBT Youth*, 9(2), 153. doi:10.1080/19361653.2011.649616.
- Corby, E., Campbell, M., Spears, B., Slee, P., Butler, D., & Kift, S. (2016;2014;). Students' perceptions of their own victimization: A youth voice perspective. *Journal of School Violence*, 15(3), 322-21.  
doi:10.1080/15388220.2014.996719.
- Coulter, R. W. S., Herrick, A. L., Friedman, M. R., & Stall, R. D. (2016). Sexual-orientation differences in positive youth development: The mediational role of bullying victimization. *American Journal of Public Health*, 106(4), 691-e7.  
doi:10.2105/AJPH.2015.303005.
- Cowan, R. L. (2012). It's complicated: Defining workplace bullying from the human resource professional's perspective. *Management Communication Quarterly*, 26(3), 377-403. doi:10.1177/0893318912439474.
- Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*, 24(1), 123-130. doi:10.1016/S0191-8869(97)00145-1.
- Craig, W. M., & Pepler, D. J. (1995). Peer processes in bullying and victimization: An observational study. *Education in Canada*, 5, 81–95. Retrieved from <http://psycserver.psyc.queensu.ca/craigw/Craig,%20&%20Pepler.1995.pdf>.

- Craig, W., Pepler, D., & Blais, J. (2007). Responding to bullying: What works? *School Psychology International*, 28(4), 465-477.  
doi:10.1177/0143034307084136.
- Crandal, R. (1973). The measurement of self-esteem and related constructs, Pp. 80-82 in J.P. Robinson & P.R. Shaver (Eds), Measures of social psychological attitudes. Revised edition. Ann Arbor: ISR.
- Crapanzano, A. M., Frick, P. J., Childs, K., & Terranova, A. M. (2011). Gender differences in the assessment, stability, and correlates to bullying roles in middle school children: Gender and bullying. *Behavioral Sciences & the Law*, n/a. doi:10.1002/bsl.1000.
- Cross, D., & Barnes, A. (2014). Using systems theory to understand and respond to family influences on children's bullying behavior: Friendly schools friendly families program. *Theory into Practice*, 53(4), 293-299.  
doi:10.1080/00405841.2014.947223.
- Cross, D., Lester, L., & Barnes, A. (2015). A longitudinal study of the social and emotional predictors and consequences of cyber and traditional bullying victimisation. *International Journal of Public Health*, 60(2), 207-217.  
doi:10.1007/s00038-015-0655-1.
- Crosslin, K., & Golman, M. (2014). "Maybe you don't want to face it" – college students' perspectives on cyberbullying. *Computers in Human Behavior*, 41, 14-20. doi:10.1016/j.chb.2014.09.007.
- Crowley, D. M. (2013). Building efficient crime prevention strategies: Considering the economics of investing in human development Crowley developmental crime prevention. *Criminology and Public Policy*, 12(2), 353-366.  
doi:10.1111/1745-9133.12041.

- Cuadra, L. E., Jaffe, A. E., Thomas, R., & DiLillo, D. (2014). Child maltreatment and adult criminal behaviour: Does criminal thinking explain the association? *Child Abuse & Neglect*, 38(8), 1399-1408. doi:10.1016/j.chabu.2014.02.005.
- Cuadrado Gordillo, I. (2011). Divergence in aggressors' and victims' perceptions of bullying: A decisive factor for differential psychosocial intervention. *Children and Youth Services Review*, 33(9), 1608-1615. doi:10.1016/j.childyouth.2011.04.002.
- Dalsgaard, S., Mortensen, P. B., Frydenberg, M., & Thomsen, P. H. (2013). Long-term criminal outcome of children with attention deficit hyperactivity disorder. *Criminal Behaviour and Mental Health*, 23(2), 86-98. doi:10.1002/cbm.1860.
- David-Ferdon, C., & Hertz, M. F. (2007). Electronic media, violence, and adolescents: An emerging public health problem. *Journal of Adolescent Health*, 41(6), S1-S5. doi:10.1016/j.jadohealth.2007.08.020.
- De Fazio, L. (2016). Young people and cyberspace: Introduction. *European Journal on Criminal Policy and Research*, 22(2), 211-217. doi:10.1007/s10610-015-9298-2.
- Dearden, J. (2004). Resilience: A study of risk and protective factors from the perspective of young people with experience of local authority care. *Support for Learning*, 19(4), 187-193. doi:10.1111/j.0268-2141.2004.00346.x.
- DeCarlo, L. T. (1997). On the meaning and use of kurtosis. *Psychological methods*, 2(3), 292-307.
- DeJong, S., Clay, T., & Fox, G. (2008). Child development: A practitioner's guide, second edition. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47(8), 969-970. doi:10.1097/chi.0b013e318179a0bc.

- Del Rey, R., Lazuras, L., Casas, J. A., Barkoukis, V., Ortega-Ruiz, R., & Tsorbatzoudis, H. (2016). Does empathy predict (cyber) bullying perpetration, and how do age, gender and nationality affect this relationship? *Learning and Individual Differences*, 45, 275-281. doi:10.1016/j.lindif.2015.11.021.
- DePaolis, K., & Williford, A. (2015). The nature and prevalence of cyber victimization among elementary school children. *Child & Youth Care Forum*, 44(3), 377-393. doi:10.1007/s10566-014-9292-8.
- Department of Communication and the Arts (2014). *Research on youth exposure to, and management of, cyber-bullying incidents in Australia: Synthesis report*. (June 2014). Retrieved from <https://www.communications.gov.au/publications/publications/research-youth-exposure-and-management-cyber-bullying-incidents-australia-synthesis-report-june-2014>.
- Deschamps, R., & McNutt, K. (2016). Cyberbullying: What's the problem? *Canadian Public Administration*, 59(1), 45-71. doi:10.1111/capa.12159.
- Dowd, K. M. (2015). Using the bully pulpit: The hidden violence of bullying in our schools. *Religious Education*, 110(2), 133. doi:10.1080/00344087.2015.1013904.
- Dowling, M. J., & Carey, T. A. (2013). victims of bullying: Whom they seek help from and why: An Australian sample. *Psychology in the Schools*, 50(8), 798-809. doi:10.1002/pits.21709.
- Drennan, J., Brown, M. R., & Sullivan Mort, G. (2011). Phone bullying: Impact on self-esteem and well-being. *Young Consumers*, 12(4), 295-309. doi:10.1108/1747361111185850.

- Due, P., Damsgaard, M. T., Lund, R., & Holstein, B. E. (2009). Is bullying equally harmful for rich and poor children?: A study of bullying and depression from age 15 to 27. *The European Journal of Public Health*, 19(5), 464-469. doi:10.1093/eurpub/ckp099.
- Duncan, S. H. (2011). Restorative justice and bullying: A missing solution in the anti-bullying laws. *New England Journal on Criminal & Civil Confinement*, 37(2), 267.
- Duong, J., & Bradshaw, C. (2014). Associations between bullying and engaging in aggressive and suicidal behaviors among sexual minority youth: The moderating role of connectedness. *Journal of School Health*, 84(10), 636-645. doi:10.1111/josh.12196.
- Dupper, D. R., Forrest-Bank, S., & Lowry-Carusillo, A. (2015;2014;). Experiences of religious minorities in public school settings: Findings from focus groups involving Muslim, Jewish, catholic, and unitarian universalist youths. *Children & Schools*, 37(1), 37-45. doi:10.1093/cs/cdu029.
- Edmondson, L., & Zeman, L. D. (2009). Hurt people hurt people: Female bully-victims. *Reclaiming Children and Youth*, 18(3), 24.
- Egan, S. K., & Perry, D. G. (1998). Does low self-regard invite victimization? *Developmental Psychology*, 34(2), 299-309. doi:10.1037/0012-1649.34.2.299.
- Einolf, C. J. (2012). Is cognitive empathy more important than affective empathy? A response to “Who helps Natural-Disaster victims?”. *Analyses of Social Issues and Public Policy*, 12(1), 268-271. doi:10.1111/j.1530-2415.2012.01281.x.
- Elias, M. J., & Zinsd, J. E. (2003). Bullying, other forms of peer harassment, and victimization in the schools: Issues for school psychology research and

- practice. *Journal of Applied School Psychology*, 19(2), 1-5.  
doi:10.1300/J008v19n02\_01.
- Erdur-Baker, Ö. (2010). Cyberbullying and its correlation to traditional bullying, gender and frequent and risky usage of internet-mediated communication tools. *New Media & Society*, 12(1), 109-125. doi:10.1177/1461444809341260.
- Erdur-Baker, Ö., & Kavşut, F. (2007). Erdur-Baker, Ö., & Kavşut, F. (2007). A new face of peer bullying: cyber bullying. *Eurasian Journal of Educational Research*, 27, 31–42.
- Erreygers, S., Pabian, S., Vandebosch, H., & Baillien, E. (2016). Helping behavior among adolescent bystanders of cyberbullying: The role of impulsivity. *Learning and Individual Differences*, 48, 61-67.  
doi:10.1016/j.lindif.2016.03.003.
- Eslea, M., & Mukhtar, K. (2000). Bullying and racism among Asian schoolchildren in Britain. *Educational Research*, 42(2), 207-217.  
doi:10.1080/001318800363845.
- Espelage, D. L., & Holt, M. K. (2013). Suicidal ideation and school bullying experiences after controlling for depression and delinquency. *Journal of Adolescent Health*, 53(1), S27-S31. doi:10.1016/j.jadohealth.2012.09.017.
- Espelage, D. L., Bosworth, K., & Simon, T. R. (2001). Short-term stability and prospective correlates of bullying in middle-school students: An examination of potential demographic, psychosocial, and environmental influences. *Violence and Victims*, 16(4), 411.
- Espelage, D., Green, H., & Polanin, J. (2012). Willingness to intervene in bullying episodes among middle school students: Individual and peer-group influences. *The Journal of Early Adolescence*, 32(6), 776-801.

- Evans, C. B. R., Fraser, M. W., & Cotter, K. L. (2014). The effectiveness of school-based bullying prevention programs: A systematic review. *Aggression and Violent Behavior*, 19(5), 532-544. doi:10.1016/j.avb.2014.07.004.
- Fahy, A. E., Stansfeld, S. A., Smuk, M., Smith, N. R., Cummins, S., & Clark, C. (2016). Longitudinal associations between cyberbullying involvement and adolescent mental health. *Journal of Adolescent Health*, 59(5), 502-509. doi:10.1016/j.jadohealth.2016.06.006.
- Falshaw, L., Browne, K. D., & Hollin, C. R. (1996). Victim to offender: A review. *Aggression and Violent Behavior*, 1(4), 389-404. doi:10.1016/S1359-1789(96)00005-5.
- Fanti, K. A., & Henrich, C. C. (2015). Effects of self-esteem and narcissism on bullying and victimization during early adolescence. *The Journal of Early Adolescence*, 35(1), 5-29. doi:10.1177/0272431613519498.
- Fanti, K. A., & Kimonis, E. R. (2012). Bullying and victimization: The role of conduct problems and psychopathic traits. *Journal of Research on Adolescence*, 22(4), 617-631. doi:10.1111/j.1532-7795.2012.00809.x.
- Fanti, K. A., Demetriou, A. G., & Hawa, V. V. (2012). A longitudinal study of cyberbullying: Examining risk and protective factors. *European Journal of Developmental Psychology*, 9(2), 168. doi:10.1080/17405629.2011.643169.
- Farrington, D. P. (1993). Understanding and preventing bullying. *Crime and Justice*, 17, 381-458. doi:10.1086/449217.
- Farrington, D. P., & Baldry, A. C. (2010). Individual risk factors for school bullying. *Journal of Aggression, Conflict and Peace Research*, 2(1), 4-16. doi:10.5042/jacpr.2010.0001.

- Fekkes, M. (2004;2005;). Bullying: Who does what, when and where? involvement of children, teachers and parents in bullying behavior. *Health Education Research*, 20(1), 81-91. doi:10.1093/her/cyg100.
- Fekkes, M., Pijpers, F. I. M., & Verloove-Vanhorick, S. P. (2004). Bullying behaviour and associations with psychosomatic complaints and depression in victims. *The Journal of Pediatrics*, 144(1), 17-22. doi:10.1016/j.jpeds.2003.09.025.
- Felipe, M. T., García, S. d. O., Babarro, J. M., & Arias, R. M. (2011). Social characteristics in bullying typology: Digging deeper into description of bully-victim. *Procedia - Social and Behavioral Sciences*, 29, 869-878. doi:10.1016/j.sbspro.2011.11.316.
- Felmlee, D., & Faris, R. (2016). Toxic ties: Networks of friendship, dating, and cyber victimization. *Social Psychology Quarterly*, 79(3), 243-262. doi:10.1177/0190272516656585.
- Ferguson, C. J., Miguel, C. S., Kilburn, J. C., & Sanchez, P. (2007). The effectiveness of school-based anti-bullying programs: A meta-analytic review. *Criminal Justice Review*, 32(4), 401-414. doi:10.1177/0734016807311712.
- Field, A. (2009). Discovering statistics using SPSS. Sage publications.
- Fink, E., Deighton, J., Humphrey, N., & Wolpert, M. (2015). Assessing the bullying and victimisation experiences of children with special educational needs in mainstream schools: Development and validation of the bullying behaviour and experience scale. *Research in Developmental Disabilities*, 36, 611-619. doi:10.1016/j.ridd.2014.10.048.

Finkelhor, D., Turner, H. A., & Hamby, S. (2012). Let's prevent peer victimization, not just bullying. *Child Abuse and Neglect*, 36(4), 271-274.

doi:10.1016/j.chabu.2011.12.001.

Fitzpatrick, S., & Bussey, K. (2011). The development of the social bullying involvement scales. *Aggressive Behavior*, 37(2), 177-192.

doi:10.1002/ab.20379.

Fleming, L. C., & Jacobsen, K. H. (2009). Bullying and symptoms of depression in Chilean middle school students. *Journal of School Health*, 79(3), 130-137.

doi:10.1111/j.1746-1561.2008.0397.x.

Floros, G. D., Siomos, K. E., Fisoun, V., Dafouli, E., & Geroukalis, D. (2013).

Adolescent online cyberbullying in Greece: The impact of parental online security practices, bonding, and online impulsiveness. *Journal of School Health*, 83(6), 445-453. doi:10.1111/josh.12049.

Fombonne, E., Wostear, G., Cooper, V., Harrington, R., & Rutter, M. (2001). The maudsley long-term follow-up of child and adolescent depression: suicidality, criminality and social dysfunction in adulthood. *The British Journal of Psychiatry*, 179(3), 218-223. doi:10.1192/bjp.179.3.218.

Fousiani, K., Dimitropoulou, P., Michaelides, M. P., & Van Petegem, S. (2016). Perceived parenting and adolescent cyber-bullying: Examining the intervening role of autonomy and relatedness need satisfaction, empathic concern and recognition of humanness. *Journal of Child and Family Studies*, 25(7), 2120-2129. doi:10.1007/s10826-016-0401-1.

Fox, B. H., Jennings, W. G., & Farrington, D. P. (2015). Bringing psychopathy into developmental and life-course criminology theories and research. *Journal of Criminal Justice*, 43(4), 274-289. doi:10.1016/j.jcrimjus.2015.06.003.

- Fox, C. L., & Farrow, C. V. (2009). Global and physical self-esteem and body dissatisfaction as mediators of the relationship between weight status and being a victim of bullying. *Journal of Adolescence*, 32(5), 1287-1301. doi:10.1016/j.adolescence.2008.12.006.
- Fox, S., & Stallworth, L. E. (2005). Racial/ethnic bullying: Exploring links between bullying and racism in the US workplace. *Journal of Vocational Behavior*, 66(3), 438-456. doi:10.1016/j.jvb.2004.01.002.
- Frisén, A., Hasselblad, T., Holmqvist, K., Department of Psychology, Psykologiska institutionen, Samhällsvetenskapliga fakulteten, . . . Göteborgs universitet. (2012). What actually makes bullying stop? Reports from former victims. *Journal of Adolescence*, 35(4), 981-990. doi:10.1016/j.adolescence.2012.02.001.
- Frisén, A., Holmqvist, K., & Oscarsson, D. (2008). 13-year-olds' perception of bullying: Definitions, reasons for victimisation and experience of adults' response. *Educational Studies*, 34(2), 105-117. doi:10.1080/03055690701811149.
- Frisén, A., Holmqvist, K., Department of Psychology, Psykologiska institutionen, Samhällsvetenskapliga fakulteten, Faculty of Social Sciences, . . . Göteborgs universitet. (2010). Adolescents' own suggestions for bullying interventions at age 13 and 16. *Scandinavian Journal of Psychology*, 51(2), 123-131. doi:10.1111/j.1467-9450.2009.00733.x.
- G Felsten & V Hill. Aggression Questionnaire Hostility Scale Predicts Anger in Response to Mistreatment. 37(1) Behav Res Ther 87-97. 1999.
- Gámez-Guadix, M., & Gini, G. (2016). Individual and class justification of cyberbullying and cyberbullying perpetration: A longitudinal analysis among

- adolescents. *Journal of Applied Developmental Psychology*, 44, 81-89.  
doi:10.1016/j.appdev.2016.04.001.
- Gannon, F. (2008). Bullies. *EMBO Reports*, 9(10), 937-937.  
doi:10.1038/embor.2008.177.
- Garandeau, C. F., Poskiparta, E., & Salmivalli, C. (2014). Tackling acute cases of school bullying in the KiVa anti-bullying program: A comparison of two approaches. *Journal of Abnormal Child Psychology*, 42(6), 981-991.  
doi:10.1007/s10802-014-9861-1.
- Garandeau, C. F., Vartio, A., Poskiparta, E., & Salmivalli, C. (2016). School bullies' intention to change behavior following teacher interventions: Effects of empathy arousal, condemning of bullying, and blaming of the perpetrator. *Prevention Science*, doi:10.1007/s11121-016-0712-x.
- Garnefski, N., & Kraaij, V. (2014). Bully victimization and emotional problems in adolescents: Moderation by specific cognitive coping strategies? *Journal of Adolescence*, 37(7), 1153-1160. doi:10.1016/j.adolescence.2014.07.005.
- Garnett, B. R., Masyn, K. E., Austin, S. B., Williams, D. R., & Viswanath, K. (2015). Coping styles of adolescents experiencing multiple forms of discrimination and bullying: Evidence from a sample of ethnically diverse urban youth. *Journal of School Health*, 85(2), 109-117. doi:10.1111/josh.12225.
- George, D. & Mallory, P. (2016). *SPSS for Windows step by step: a simple guide and reference, 11.0 update* (14<sup>th</sup> ed.). Boston, MA: Allyn and Bacon.
- Georgiou, S. N., & Stavrinides, P. (2013). Parenting at home and bullying at school. *Social Psychology of Education*, 16(2), 165. doi:10.1007/s11218-012-9209-z.
- Gerler, E. (2008). bullying. *Journal of School Violence*, 7(2), 1-2.  
doi:10.1300/J202v07n02\_01.

- Gillespie, A. A. (2006). Cyber-bullying and harassment of teenagers: The legal response. *Journal of Social Welfare and Family Law*, 28(2), 123-136. doi:10.1080/09649060600973772.
- Glassner, S. D., & Cho, S. (2018). Bullying victimization, negative emotions, and substance use: Utilizing general strain theory to examine the undesirable outcomes of childhood bullying victimization in adolescence and young adulthood. *Journal of Youth Studies*, 21(9), 1232-1249. doi:10.1080/13676261.2018.1461200.
- Goebert, D., Else, I., Matsu, C., Chung-Do, J., & Chang, J. Y. (2011;2010;). The impact of cyberbullying on substance use and mental health in a multiethnic sample. *Maternal and Child Health Journal*, 15(8), 1282-1286. doi:10.1007/s10995-010-0672-x.
- Goldbaum, S., Craig, W.M., Pepler, D., & Connolly, J. (2003). Developmental trajectories of victimization: Identifying risk and protective factors. *Journal of Applied School Psychology*, 19(2), 139-156. doi:10.1300/J008v19n02\_09.
- Goldsmid, S., & Howie, P. (2014). Bullying by definition: An examination of definitional components of bullying. *Emotional and Behavioural Difficulties*, 19(2), 210-225. doi:10.1080/13632752.2013.844414.
- Goldweber, A., Waasdorp, T. E., & Bradshaw, C. P. (2013). Examining associations between race, urbanicity, and patterns of bullying involvement. *Journal of Youth and Adolescence*, 42(2), 206-219. doi:10.1007/s10964-012-9843-y.
- Goldweber, A., Waasdorp, T. E., & Bradshaw, C. P. (2013). Examining the link between forms of bullying behaviors and perceptions of safety and belonging

among secondary school students. *Journal of School Psychology*, 51(4), 469.

doi:10.1016/j.jsp.2013.04.004.

Gómez-Ortiz, O., Del Rey, R., Casas, J., & Ortega-Ruiz, R. (2014). Parenting styles

and bullying involvement / estilos parentales e implicación en bullying.

*Cultura y Educación*, 26(1), 132-158. doi:10.1080/11356405.2014.908665.

Gómez-Ortiz, O., Romera, E. M., & Ortega-Ruiz, R. (2016). Parenting styles and

bullying, the mediating role of parental psychological aggression and physical

punishment. *Child Abuse & Neglect*, 51, 132-143.

doi:10.1016/j.chabu.2015.10.025.

Gonzalez, T. (2012). Keeping kids in schools: Restorative justice, punitive discipline,

and the school to prison pipeline. *The Journal of Law and Education*, 41(2),

281.

Good, B., & Fang, L. (2015). Promoting smart and safe Internet use among children

with neurodevelopmental disorders and their parents. *Clinical Social Work*

*Journal*, 43(2), 179-188. doi:10.1007/s10615-015-0519-4.

Görzig, A., & Ólafsson, K. (2013). What makes a bully a cyberbully? Unravelling the

characteristics of cyberbullies across twenty-five European countries. *Journal*

*of Children and Media*, 7(1), 9-27. doi:10.1080/17482798.2012.739756.

Gradinger, P., Yanagida, T., Strohmeier, D., & Spiel, C. (2016). Effectiveness and

sustainability of the ViSC social competence program to prevent

cyberbullying and cyber-victimization: Class and individual level moderators.

*Aggressive Behavior*, 42(2), 181-193. doi:10.1002/ab.21631.

Graham, J., Nosek, B. A., Haidt, J., Iver, R., Koleva, S., & Ditto, P. (2011). Mapping

the Moral Domain. *Personality and Social Psychology*, 101, (2)366-385.

Doi:10.1037/a0021847.

- Graham, S., Bellmore, A., & Juvonen, J., (2003). Peer victimization in middle school: When self- and peer views diverge. *Journal of Applied School Psychology*, 19(2), 117-137. doi:10.1300/J008v19n02\_08.
- Green, J. G., Felix, E. D., Sharkey, J. D., Furlong, M. J., & Kras, J. E. (2013). Identifying bully victims: Definitional versus behavioral approaches. *Psychological Assessment*, 25(2), 651.
- Gregory, A., Cornell, D., Fan, X., Sheras, P., Shih, T., & Huang, F. (2010). Authoritative school discipline: High school practices associated with lower bullying and victimization. *Journal of Educational Psychology*, 102(2), 483-496. doi:10.1037/a0018562.
- Gresham, D., Melvin, G. A., & Gullone, E. (2016). The role of anger in the relationship between internalising symptoms and aggression in adolescents. *Journal of Child and Family Studies*, 25(9), 2674-2682. doi:10.1007/s10826-016-0435-4.
- Griffin, R. S., & Gross, A. M. (2004). Childhood bullying: Current empirical findings and future directions for research. *Aggression and Violent Behavior*, 9(4), 379-400. doi:10.1016/S1359-1789(03)00033-8
- Griffiths, L. J., Wolke, D., Page, A. S., Horwood, J. P., & ALSPAC Study Team. (2006;2005;). Obesity and bullying: Different effects for boys and girls. *Archives of Disease in Childhood*, 91(2), 121-125. doi:10.1136/adc.2005.072314.
- Grossi, P. K., & Santos, A. M. d. (2012). Bullying in brazilian schools and restorative practices. *Canadian Journal of Education*, 35(1), 120.

- Gruber, J. E., & Fineran, S. (2008). Comparing the impact of bullying and sexual harassment victimization on the mental and physical health of adolescents. *Sex Roles*, 59(1), 1-13. doi:10.1007/s11199-008-9431-5.
- Guo, S. (2016). A meta-analysis of the predictors of cyberbullying perpetration and victimization. *Psychology in the Schools*, 53(4), 432-453. doi:10.1002/pits.21914.
- Haapasalo, J., & Pokela, E. (1999). Child-rearing and child abuse antecedents of criminality. *Aggression and Violent Behavior*, 4(1), 107-127. doi:10.1016/S1359-1789(97)00027-X.
- Hadfield, L., Edwards, R., & Mauthner, M. (2006). Brothers and sisters: A source of support for children in school? *Education 3-13*, 34(1), 65-72. doi:10.1080/03004270500507602.
- Haidt, J. (2013). The righteous mind: Why good people are divided by politics and religion. New York: Vintage Books.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20, 98–116. doi:10.1007/s11211-007-0034-z.
- Hamburger ME, Basile KC, Vivolo AM. (2011). *Measuring Bullying Victimization, Perpetration, and Bystander Experiences: A Compendium of Assessment Tools*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.
- Harcourt, S., Jasperse, M., & Green, V. A. (2014). “We were sad and we were angry”: A systematic review of parents’ perspectives on bullying. *Child & Youth Care Forum*, 43(3), 373-391. doi:10.1007/s10566-014-9243-4.

- Hargreaves, D. S., Bevilacqua, L., & Shackleton, N. (2015). Association between ethnic minority status at school and bullying and mental health outcomes in early adolescence: Cross-sectional analysis of data from the inclusive study. *The Lancet*, 386, S42. doi:10.1016/S0140-6736(15)00880-6.
- Harrison, T. (2015). Virtuous reality: Moral theory and research into cyber-bullying. *Ethics and Information Technology*, 17(4), 275-283. doi:10.1007/s10676-015-9382-9.
- Hay, C., Meldrum, R., & Mann, K. (2010). Traditional bullying, cyber bullying, and deviance: A general strain theory approach. *Journal of Contemporary Criminal Justice*, 26(2), 130-47. doi:10.1177/1043986209359557.
- Heiman, T., & Olenik-Shemesh, D. (2015). Cyberbullying experience and gender differences among adolescents in different educational settings. *Journal of Learning Disabilities*, 48(2), 146-155.
- Hein, V., Koka, A., & Hagger, M. S. (2015). Relationships between perceived teachers' controlling behaviour, psychological need thwarting, anger and bullying behaviour in high-school students. *Journal of Adolescence*, 42, 103-114. doi:10.1016/j.adolescence.2015.04.003.
- Hellstrom, L., Persson, L., Hagquist, C., Karlstads universitet, Centrum for forskning om barns och ungdomars psykiska halsa, Fakulteten for humaniora och samhällsvetenskap (from 2013). Institutionen för hälsosvetenskaper. (2015). Understanding and defining bullying - adolescents' own views. *Archives of Public Health*, 73(4).
- Hemphill, S. A., Kotevski, A., & Heerde, J. A. (2015). Longitudinal associations between cyber-bullying perpetration and victimization and problem

- behavior and mental health problems in young Australians. *International Journal of Public Health*, 60(2), 227-237. doi:10.1007/s00038-014-0644-9.
- Hemphill, S. A., Kotevski, A., Tollit, M., Smith, R., Herrenkohl, T. I., Toumbourou, J. W., & Catalano, R. F. (2012). Longitudinal predictors of cyber and traditional bullying perpetration in Australian secondary school students. *Journal of Adolescent Health*, 51(1), 59-65. doi:10.1016/j.jadohealth.2011.11.019.
- Hemphill, S. A., Tollit, M., & Herrenkohl, T. I. (2014). Protective factors against the impact of school bullying perpetration and victimization on young adult externalizing and internalizing problems. *Journal of School Violence*, 13(1), 125-145. doi:10.1080/15388220.2013.844072.
- Hemphill, S. A., Tollit, M., Kotevski, A., & Heerde, J. A. (2015). Predictors of traditional and cyber-bullying victimization: A longitudinal study of Australian secondary school students. *Journal of Interpersonal Violence*, 30(15), 2567-2590. doi:10.1177/0886260514553636.
- Hillard, P., Love, L., Franks, H. M., Laris, B. A., & Coyle, K. K. (2014). "They were only joking": Efforts to decrease LGBTQ bullying and harassment in Seattle public schools. *Journal of School Health*, 84(1), 1-9. doi:10.1111/josh.12120.
- Hinduja, S., & Patchin, J. W. (2008). *Bullying beyond the schoolyard: Preventing and responding to cyberbullying*. Thousand Oaks, CA: Corwin Press.
- Hoertel, N., Le Strat, Y., Lavaud, P., & Limosin, F. (2012). Gender effects in bullying: Results from a national sample. *Psychiatry Research*, 200(2-3), 921-927. doi:10.1016/j.psychres.2012.03.036.

- Hoetger, L. A., Hazen, K. P., & Brank, E. M. (2015). All in the family: A retrospective study comparing sibling bullying and peer bullying. *Journal of Family Violence*, 30(1), 103-111. doi:10.1007/s10896-014-9651-0.
- Holfeld, B., & Leadbeater, B. J. (2015). The nature and frequency of cyber bullying behaviors and victimization experiences in young Canadian children. *Canadian Journal of School Psychology*, 30(2), 116-135. doi:10.1177/0829573514556853.
- Holland, D., Ireland, J. L., & Muncer, S. (2009). Impulsivity, attribution and prison bullying: Bully-category and perpetrator–victim mutuality. *International Journal of Law and Psychiatry*, 32(2), 84-91. doi:10.1016/j.ijlp.2009.01.004.
- Holt, M. K., Kaufman Kantor, G., & Finkelhor, D. (2009). Parent/Child concordance about bullying involvement and family characteristics related to bullying and peer victimization. *Journal of School Violence*, 8(1), 42-63. doi:10.1080/15388220802067813.
- Homel, J. B. (2013). Does bullying others at school lead to adult aggression?: The roles of drinking and university participation during the transition to adulthood. *Australian Journal of Psychology*, 65(2), 98.
- Hong, J. S. (2008;2009;). Feasibility of the Olweus bullying prevention program in low-income schools. *Journal of School Violence*, 8(1), 81-97. doi:10.1080/15388220802067953.
- Hooge, d., I.E, Nelissen, R. M. A., Breugelmans, S. M., & Zeelenberg, M. (2011). What is moral about guilt? acting 'prosocially' at the disadvantage of others. *Journal of Personality and Social Psychology*, 100(3), 462-473.
- Hopkins, L., Taylor, L., Bowen, E., & Wood, C. (2013). A qualitative study investigating adolescents' understanding of aggression, bullying and violence.

*Children and Youth Services Review*, 35(4), 685-693.

doi:10.1016/j.childyouth.2013.01.012.

Horton, P., Linköpings universitet, Institutionen för tema, Tema Barn, & Filosofiska fakulteten. (2011). School bullying and social and moral orders. *Children & Society*, 25(4), 268-277. doi:10.1111/j.1099-0860.2011.00377.x.

HosseiniMardi, H., Mattson, S. A., Rafiq, R. I., Han, R., Lv, Q., & Mishra, S. (2015). Detection of cyberbullying incidents on the instagram social network.

Retrieved from <https://hud.summon.serialssolutions.com>.

Houchins, D. E., Oakes, W. P., & Johnson, Z. G. (2016). Bullying and students with disabilities: A systematic literature review of intervention studies. *Remedial and Special Education*, 37(5), 259-273. doi:10.1177/0741932516648678.

Huang, Y., & Chou, C. (2010). An analysis of multiple factors of cyberbullying among junior high school students in Taiwan. *Computers in Human Behavior*, 26(6), 1581-1590. doi:10.1016/j.chb.2010.06.005.

Parry, H. J., & Crossley, H. M. (1950). Validity of Responses to Survey Questions, *Public Opinion Quarterly*, 14(1), 61-80.  
doi: <https://doi.org/10.1086/266150>.

Hughes, N. (2015). Understanding the influence of neurodevelopmental disorders on offending: Utilizing developmental psychopathology in biosocial criminology. *Criminal Justice Studies*, 28(1), 39-60. doi:10.1080/1478601X.2014.1000004.

Huitsing, G., Veenstra, R., Sainio, M., & Salmivalli, C. (2012). "It must be me" or "It could be them?": The impact of the social network position of bullies and victims on victims' adjustment. *Social Networks*, 34(4), 379-386.  
doi:10.1016/j.socnet.2010.07.002.

- Hunt, C. (2015). Understanding and combating School-Based bullying from an Individual-Level perspective: A review. *Australian Psychologist*, 50(3), 182-185. doi:10.1111/ap.12093.
- Hunter, S. C., & Boyle, J. M. E. (2004). Appraisal and coping strategy use in victims of school bullying. *The British Journal of Educational Psychology*, 74(Pt 1), 83-107. doi:10.1348/000709904322848833.
- Hussein, M. H. (2010). The peer interaction in primary school questionnaire: Testing for measurement equivalence and latent mean differences in bullying between gender in Egypt, Saudi Arabia and the USA. *Social Psychology of Education*, 13(1), 57-76. doi:10.1007/s11218-009-9098-y.
- Hymel, S., & Bonanno, R. A. (2014). Moral disengagement processes in bullying. *Theory into Practice*, 53(4), 278-285. doi:10.1080/00405841.2014.947219.
- İçellioğlu, S., & Özden, M. S. (2014). Cyberbullying: A new kind of peer bullying through online technology and its relationship with aggression and social anxiety. *Procedia - Social and Behavioral Sciences*, 116, 4241-4245. doi:10.1016/j.sbspro.2014.01.924.
- Inoko, K., Aoki, T., Kodaira, K., & Osawa, M. (2011). P01-299-behavioral characteristics of bullies, victims and bully/victims. *European Psychiatry*, 26, 300-301. doi:10.1016/S0924-9338(11)72010-7.
- Ioannou, M. (2006). *Hero or villain? Criminals' experience of crime*. (PhD thesis). University of Liverpool, Liverpool.
- Ioannou, M., Canter, D., & Youngs, D. (2016). Criminal narrative experience: Relating emotions to offence narrative roles during crime commission. *International Journal of Offender Therapy and Comparative Criminology*, 1-23.

- Ioannou, M., Canter, D., Youngs, D., & Synnott, J. (2015). Offenders' crime narratives across different types of crimes. *Journal of Forensic Psychology Practice*, 15(5), 383-400.
- Ioannou, M., Synnott, J., Low, E & Tzani-Pepelasi, C. (2018). Applying the Criminal Narrative Experience Framework to Young Offenders. *International Journal of Offender Therapy and Comparative Criminology*.
- Ireland, J. L., & Archer, J. (2004). Association between measures of aggression and bullying among juvenile and young offenders. *Aggressive Behavior*, 30(1), 29-42. doi:10.1002/ab.20007.
- Iyer, P. A., Dougall, A. L., & Jensen-Campbell, L. A. (2013). Are some adolescents differentially susceptible to the influence of bullying on depression? *Journal of Research in Personality*, 47(4), 272-281. doi:10.1016/j.jrp.2013.02.004.
- Jang, H., Song, J., & Kim, R. (2014). Does the offline bully-victimization influence cyberbullying behavior among youths? application of general strain theory. *Computers in Human Behavior*, 31, 85-93. doi:10.1016/j.chb.2013.10.007.
- Jankauskiene, R., Kardelis, K., Sukys, S., & Kardeliene, L. (2008). Associations between school bullying and psychosocial factors. *Social Behavior and Personality*, 36(2), 145.
- Jansen, P., Verlinden, V., Berkel, A. D., Mieloo, C., Ende, J., Veenstra, R., . . . Tiemeier, H. (2012). Prevalence of bullying and victimization among children in early elementary school: Do family and school neighbourhood socioeconomic status matter? *BMC Public Health*, 12(1), 494. doi:10.1186/1471-2458-12-494.

- Jantzer, A. M., Hoover, J. H., & Narloch, R. (2006). The relationship between school-aged bullying and trust, shyness and quality of friendships in young adulthood: A preliminary research note. *School Psychology International*, 27(2), 146-156. doi:10.1177/0143034306064546
- Jolliffe, D., & Farrington, D. P. (2006). Examining the relationship between low empathy and bullying. *Aggressive Behavior*, 32(6), 540-550. doi:10.1002/ab.20154.
- Jolliffe, D., & Farrington, D. P. (2011). Is low empathy related to bullying after controlling for individual and social background variables? *Journal of Adolescence*, 34(1), 59-71. doi:10.1016/j.adolescence.2010.02.001.
- Jose, P. E., Kljakovic, M., Scheib, E., & Notter, O. (2012). The joint development of traditional bullying and victimization with cyber bullying and victimization in adolescence. *Journal of Research on Adolescence*, 22(2), 301-309. doi:10.1111/j.1532-7795.2011.00764.x.
- Juvonen, J., & Gross, E. F. (2008). Extending the school grounds?—Bullying experiences in cyberspace. *Journal of School Health*, 78(9), 496-505. doi:10.1111/j.1746-1561.2008.00335.x.
- Holt, K. M., & Espelage, L. D. (2007). Perceived social support among bullies, victims, and bully-victims. *Journal of Youth and Adolescence*, 36(8), 984-994. doi:10.1007/s10964-006-9153-3.
- Kaltiala-Heino, R., & Frojd. (2011). Correlation between bullying and clinical depression in adolescent patients. *Adolescent Health, Medicine and Therapeutics*, 2011, 37-44. doi:10.2147/AHMT.S11554.

- Kaltiala-Heino, R., Fröjd, S., & Marttunen, M. (2010). Involvement in bullying and depression in a 2-year follow-up in middle adolescence. *European Child & Adolescent Psychiatry*, 19(1), 45-55. doi:10.1007/s00787-009-0039-2.
- Kaltiala-Heino, R., Rimpela, M., Marttunen, M., Rimpela, A., & Rantanen, P. (1999). Bullying, depression, and suicidal ideation in Finnish adolescents: School survey. *British Medical Journal*, 319(7206), 348-351.
- Kaltiala-Heino, R., Rimpela, A., Rimpela, M., & Rantanen, P. (2000). Bullying at school—an indicator of adolescents at risk for mental disorders. *Journal of Adolescence*, 23(6), 661-674. doi:10.1006/jado.2000.0351.
- Karabacak, K., Öztunç, M., Eksioglu, S., Erdogan, D. G., Yar, S., Ekenler, D., & Selim, K. (2015). Determination of the level of being cyber Bully/Victim of eighth grade students of elementary schools. *Procedia - Social and Behavioral Sciences*, 176, 846-853. doi:10.1016/j.sbspro.2015.01.549.
- Karatzias, A., Power, K. G., & Swanson, V. (2002). Bullying and victimisation in Scottish secondary schools: Same or separate entities? *Aggressive Behavior*, 28(1), 45-61. doi:10.1002/ab.90005.
- Karlsson, E., Stickley, A., Lindblad, F., Schwab-Stone, M., Ruchkin, V., Institutionen för samhällsvetenskaper. . SCOHOST (Stockholm Centre on Health of Societies in Transition). (2014;2013;). Risk and protective factors for peer victimization: A 1-year follow-up study of urban American students. *European Child & Adolescent Psychiatry*, 23(9), 773-781. doi:10.1007/s00787-013-0507-6.
- Kashdan, T. B., Goodman, F. R., Mallard, T. T., & DeWall, C. N. (2015). What triggers anger in everyday life? links to the intensity, control, and regulation of

these emotions, and personality traits: Anger regulation in daily life. *Journal of Personality*, n/a. doi:10.1111/jopy.12214.

Katsiyannis, A., Thompson, M. P., Barrett, D. E., & Kingree, J. B. (2013). School predictors of violent criminality in adulthood: Findings from a nationally representative longitudinal study. *Remedial and Special Education*, 34(4), 205-214. doi:10.1177/0741932512448255.

Kendrick, K., Jutengren, G., Stattin, H., Örebro universitet, & Institutionen för juridik, psykologi och socialt arbete. (2012). The protective role of supportive friends against bullying perpetration and victimization. *Journal of Adolescence*, 35(4), 1069-1080. doi:10.1016/j.adolescence.2012.02.014.

Kessel Schneider, S., O'Donnell, L., & Smith, E. (2015). Trends in cyberbullying and school bullying victimization in a regional census of high school students, 2006-2012. *Journal of School Health*, 85(9), 611-620. doi:10.1111/josh.12290.

Khamis, V. (2014;2015;). Bullying among school-age children in the greater Beirut area: Risk and protective factors. *Child Abuse & Neglect*, 39, 137-146. doi:10.1016/j.chabu.2014.08.005.

Khanjani, Z., Mosanezhad Jeddi, E., Hekmati, I., Khalilzade, S., Etemadi Nia, M., Andalib, M., & Ashrafian, P. (2015). Comparison of cognitive empathy, emotional empathy, and social functioning in different age groups. *Australian Psychologist*, 50(1), 80-85. doi:10.1111/ap.12099.

Khurana, A., Bleakley, A., Jordan, A. B., & Romer, D. (2015). The protective effects of parental monitoring and internet restriction on adolescents' risk of online harassment. *Journal of Youth and Adolescence*, 44(5), 1039-1047. doi:10.1007/s10964-014-0242-4.

- King, J. E., Walpole, C. E., & Lamon, K. (2007). Surf and turf wars Online—Growing implications of Internet gang violence. *Journal of Adolescent Health*, 41(6), S66-S68. doi:10.1016/j.jadohealth.2007.09.001.
- King, R., Moorfoot, R., & Kotronakis, M. (2015). Impact of bullying & cyberbullying on body image and disordered eating in young adult females. *Journal of Eating Disorders*, 3(Suppl 1), P18. doi:10.1186/2050-2974-3-S1-P18.
- Kirves, L., & Sajaniemi, N. (2012). Bullying in early educational settings. *Early Child Development and Care*, 182(3-4), 383. doi:10.1080/03004430.2011.646724.
- Klein, W. (2015). Responding to bullying: Language socialization and religious identification in classes for Sikh youth. *Journal of Language, Identity & Education*, 14(1), 19-35. doi:10.1080/15348458.2015.988568.
- Kljakovic, M., & Hunt, C. (2016). A meta-analysis of predictors of bullying and victimisation in adolescence. *Journal of Adolescence*, 49, 134-145. doi:10.1016/j.adolescence.2016.03.002.
- Klomek, A. B., Kleinman, M., Altschuler, E., Marrocco, F., Amakawa, L., & Gould, M. S. (2013). Suicidal adolescents' experiences with bullying perpetration and victimization during high school as risk factors for later depression and suicidality. *Journal of Adolescent Health*, 53(1), S37-S42. doi:10.1016/j.jadohealth.2012.12.008.
- Klomek, A. B., Sourander, A., Kumpulainen, K., Piha, J., Tamminen, T., Moilanen, I.. . Gould, M. S. (2008). Childhood bullying as a risk for later depression and suicidal ideation among Finnish males. *Journal of Affective Disorders*, 109(1), 47-55. doi:10.1016/j.jad.2007.12.226.

- Knopf, A. (2015). Cyberbullying linked to mental health problems in teens; protective factor seen in family dinners. *The Brown University Child and Adolescent Behavior Letter*, 31(1), 4-5. doi:10.1002/cbl.30012.
- Kochenderfer-Ladd, B., & Ladd, G.W. (2001). *Variations in peer victimization: Relations to children's maladjustment*. In J. Juvonen & S. Graham (Eds.). Peer harassment in school: The plight of the vulnerable and the victimized, (pp. 25-48). New York: The Guilford Press.
- Kodžopeljić, J., Smederevac, S., Mitrović, D., Dinić, B., & Čolović, P. (2014;2013;). School bullying in adolescence and personality traits: A person-centered approach. *Journal of Interpersonal Violence*, 29(4), 736-757. doi:10.1177/0886260513505216.
- Kokkinos, C. M., Antoniadou, N., Asdre, A., & Voulgaridou, K. (2016). Parenting and Internet behavior predictors of cyber-bullying and cyber-victimization among preadolescents. *Deviant Behavior*, 37(4), 439. doi:10.1080/01639625.2015.1060087.
- Kokkinos, C. M., Baltzidis, E., & Xynogala, D. (2016). Prevalence and personality correlates of Facebook bullying among university undergraduates. *Computers in Human Behavior*, 55, 840-850. doi:10.1016/j.chb.2015.10.017.
- Kolbert, J. B., Crothers, L. M., Bundick, M. J., Wells, D. S., Buzgon, J., Berbary, C., . . . Senko, K. (2015). Teachers' perceptions of bullying of lesbian, gay, bisexual, transgender, and questioning (LGBTQ) students in a southwestern Pennsylvania sample. *Behavioral Sciences (Basel, Switzerland)*, 5(2), 247-263. doi:10.3390/bs5020247.

- Kollerová, L., Janošová, P., & Říčan, P. (2015). Moral motivation in defending classmates victimized by bullying. *European Journal of Developmental Psychology*, 12(3), 297-309. doi:10.1080/17405629.2015.1006125.
- Konishi, C., & Hymel, S. (2009;2008;). Bullying and stress in early adolescence: The role of coping and social support. *The Journal of Early Adolescence*, 29(3), 333-356. doi:10.1177/0272431608320126.
- Korenis, P., & Billick, S. B. (2014). Forensic implications: Adolescent sexting and cyberbullying. *Psychiatric Quarterly*, 85(1), 97-101. doi:10.1007/s11126-013-9277-z.
- Kota, R., Schoohs, S., Benson, M., & Moreno, M. (2014). Characterizing cyberbullying among college students: Hacking, dirty laundry, and mocking. *Societies*, 4(4), 549- 560. doi:10.3390/soc4040549.
- Kousholt, K., & Fisker, T. B. (2015;2014;). Approaches to reduce bullying in schools – A critical analysis from the viewpoint of first- and Second-Order perspectives on bullying. *Children & Society*, 29(6), 593-603. doi:10.1111/chso.12094.
- Kowalski, R. M., & Fedina, C. (2011). Cyber bullying in ADHD and asperger syndrome populations. *Research in Autism Spectrum Disorders*, 5(3), 1201-1208. doi:10.1016/j.rasd.2011.01.007.
- Kowalski, R. M., & Limber, S. P. (2013). Psychological, physical, and academic correlates of cyberbullying and traditional bullying. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, 53(1 Suppl), S13. doi:10.1016/j.jadohealth.2012.09.018.
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of

- cyberbullying research among youth. *Psychological Bulletin*, 140(4), 1073-1137. doi:10.1037/a0035618.
- Kowalski, R. M., Morgan, C. A., & Limber, S. P. (2012). Traditional bullying as a potential warning sign of cyberbullying. *School Psychology International*, 33(5), 505-519. doi:10.1177/0143034312445244.
- Kraft, E. M., & Wang, J. (2009). Effectiveness of cyber bullying prevention strategies: A study on students' perspectives. *International Journal of Cyber Criminology*, 3(2), 513.
- Krienert, J. L., & Walsh, J. A. (2011). My brother's keeper: A contemporary examination of reported sibling violence using national level data, 2000-2005. *Journal of Family Violence*, 26(5), 331. doi:10.1007/s10896-011-9367-3.
- Kumpulainen, K., Räsänen, E., & Puura, K. (2001). Psychiatric disorders and the use of mental health services among children involved in bullying. *Aggressive Behavior*, 27(2), 102-110. doi:10.1002/ab.3.
- Kumpulainen, K., Rasanen, E., Henttonen, I., Almqvist, F., Kresanov, K., Linna, S.L., Moilanen, I., Piha, J., Tamminen, T., & Puura, K., (1998). Bullying and psychiatric symptoms among elementary school-aged children. *Child Abuse and Neglect*, 22(7), 705-717. doi:10.1016/S0145-2134(98)00049-0.
- Kwan, G. C. E., & Skoric, M. M. (2013). Facebook bullying: An extension of battles in school. *Computers in Human Behavior*, 29(1), 16. doi:10.1016/j.chb.2012.07.014.
- Lam, D. O. B., & Liu, A. W. H. (2007). The path through Bullying—A process model from the inside story of bullies in Hong Kong secondary schools. *Child and Adolescent Social Work Journal*, 24(1), 53-75. doi:10.1007/s10560-006-0058-5.

- Landstedt, E., Persson, S., Avdelningen för hälsovetenskap, Fakulteten för  
humanvetenskap & Mittuniversitetet. (2014). Bullying, cyberbullying, and  
mental health in young people. *Scandinavian Journal of Public Health*, 42(4),  
393-399. doi:10.1177/1403494814525004.
- Lansu, T. A. M., Cillessen, A. H. N., & Bukowski, W. M. (2013). Implicit and  
explicit peer evaluation: Associations with early adolescents' prosociality,  
aggression, and bullying. *Journal of Research on Adolescence*, 23(4),  
762-771. doi:10.1111/jora.12028.
- Lapidot-Lefler, N., & Barak, A. (2012). Effects of anonymity, invisibility, and lack of  
eye-contact on toxic online disinhibition. *Computers in Human Behavior*,  
28(2), 434-443. doi:10.1016/j.chb.2011.10.014.
- Lapidot-Lefler, N., & Dolev-Cohen, M. (2015). Comparing cyberbullying and school  
bullying among school students: Prevalence, gender, and grade level  
differences. *Social Psychology of Education*, 18(1), 1-16. doi:10.1007/s11218-  
014-9280-8.
- Lapidot-Lefler, N., & Hosri, H. (2016). Cyberbullying in a diverse society:  
Comparing Jewish and Arab adolescents in Israel through the lenses of  
individualistic versus collectivist cultures. *Social Psychology of Education*,  
19(3), 569-585. doi:10.1007/s11218-016-9339-9.
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods* Thousand Oaks, CA:  
Sage Publications, Inc. doi: 10.4135/9781412963947.
- Law, D. M., Shapka, J. D., Hymel, S., Olson, B. F., & Waterhouse, T. (2012). The  
changing face of bullying: An empirical comparison between traditional and  
internet bullying and victimization. *Computers in Human Behavior*, 28(1),  
226-232. doi:10.1016/j.chb.2011.09.004.

- Lee, E. (2009). The relationship of aggression and bullying to social preference: Differences in gender and types of aggression. *International Journal of Behavioral Development*, 33(4), 323-330. doi:10.1177/0165025408098028.
- Lee, S., Kim, C., & Kim, D. H. (2015). A meta-analysis of the effect of school-based anti-bullying programs. *Journal of Child Health Care*, 19(2), 136-153. doi:10.1177/1367493513503581.
- Lehman, B. (2014). Gender differences in bullying victimization: The role of academics and school context. *Sociological Spectrum*, 34(6), 549-570. doi:10.1080/02732173.2014.947454.
- Lembrechts, L. (2012). Digital image bullying among school students in Belgium: An exploration of the characteristics of bullies and their victims. *International Journal of Cyber Criminology*, 6(2), 968.
- Lenhart, A., Madden, M., Macgill, A. R., & Smith, A. (2007). *Teens and social media*. Retrieved from Pew Internet and American Life Project: [http://pewinternet.org/PPF/r/230/report\\_display.asp](http://pewinternet.org/PPF/r/230/report_display.asp).
- Leschied, A., Chiodo, D., Nowicki, E., & Rodger, S. (2008). Childhood predictors of adult criminality: A meta-analysis drawn from the prospective longitudinal literature. *Canadian Journal of Criminology and Criminal Justice*, 50(4), 435-467. doi:10.3138/cjccj.50.4.435.
- Lester, L., Cross, D., Shaw, T., & Dooley, J. (2012). Adolescent bully-victims: Social health and the transition to secondary school. *Cambridge Journal of Education*, 42(2), 213. doi:10.1080/0305764X.2012.676630.
- Leung, L., & Lee, P. S. N. (2012). The influences of information literacy, internet addiction and parenting styles on internet risks. *New Media & Society*, 14(1), 117-136. doi:10.1177/1461444811410406.

- Leventhal, T., & Newman, S. (2010). Housing and child development. *Children and Youth Services Review*, 32(9), 1165-1174.  
doi:10.1016/j.childyouth.2010.03.008.
- Li, C. K. W., Holt, T. J., Bossler, A. M., & May, D. C. (2016). Examining the mediating effects of social learning on the low self-control-cyberbullying relationship in a youth sample. *Deviant Behavior*, 37(2), 126.  
doi:10.1080/01639625.2014.1004023.
- Li, Q. (2006). Cyberbullying in schools: A research of gender differences. *School Psychology International*, 27(2), 157-170.  
doi:10.1177/0143034306064547.
- Li, Q. (2007). New bottle but old wine: A research of cyberbullying in schools. *Computers in Human Behavior*, 23(4), 1777-1791.  
doi:10.1016/j.chb.2005.10.005.
- Liau, A. K., Khoo, A., & Ang, P. H. (2008). Parental awareness and monitoring of adolescent internet use. *Current Psychology*, 27(4), 217-233.  
doi:10.1007/s12144- 008-9038-6.
- Lipton, J. D. (2011). Combating cyber-victimization. *Berkeley Technology Law Journal*, 26(2), 1103.
- Littlechild, B. (2011). Conflict resolution, restorative justice approaches and bullying in young People's residential units: Restorative justice approaches. *Children & Society*, 25(1), 47-58. doi:10.1111/j.1099-0860.2009.00259.x.
- Litwiller, B. J., & Brausch, A. M. (2013). Cyber bullying and physical bullying in adolescent suicide: The role of violent behavior and substance use. *Journal of Youth and Adolescence*, 42(5), 675-684. doi:10.1007/s10964-013-9925-5.

- Livingstone, S., & Helsper, E. J. (2008). Parental mediation of children's internet use. *Journal of Broadcasting & Electronic Media*, 52(4), 581-599. doi:10.1080/08838150802437396.
- Lodder, G. M. A., Scholte, R. H. J., Cillessen, A. H. N., & Giletta, M. (2016). Bully victimization: Selection and influence within adolescent friendship networks and cliques. *Journal of Youth and Adolescence*, 45(1), 132-144. doi:10.1007/s10964-015-0343-8.
- Lodge, J., & Feldman, S. S. (2007). Avoidant coping as a mediator between appearance-related victimization and self-esteem in young Australian adolescents. *British Journal of Developmental Psychology*, 25(4), 633-642. doi:10.1348/026151007X185310.
- Loeber, R., & Le Blanc, M. (1990). Toward a developmental criminology. *Crime and Justice*, 12, 375-473. doi:10.1086/449169.
- Lonigro, A., Schneider, B. H., Laghi, F., Baiocco, R., Pallini, S., & Brunner, T. (2015). Is cyberbullying related to trait or state anger? *Child Psychiatry & Human Development*, 46(3), 445-454. doi:10.1007/s10578-014-0484-0.
- Losel, F., & Bender, D. (2014). Aggressive, delinquent, and violent outcomes of school bullying: Do family and individual factors have a protective function? *Journal of School Violence*, 13(1), 59-79. doi:10.1080/15388220.2013.840644.
- Loukas, A., & Pasch, K. E. (2013). Does school connectedness buffer the impact of peer victimization on early adolescents' subsequent adjustment problems? *The Journal of Early Adolescence*, 33(2), 245-266. doi:10.1177/0272431611435117.

- Louviere, J. J., Hensher, D. A., & Swait, J. D. (2000). *Stated choice methods: Analysis and applications*. Cambridge University Press. Cambridge, UK.
- Lovegrove, P. J., Bellmore, A. D., Green, J. G., Jens, K., & Ostrov, J. M. (2013). "my voice is not going to be silent": What can parents do about children's bullying. *Journal of School Violence, 12*(3), 253-267.  
doi:10.1080/15388220.2013.792270.
- Low, S., & Espelage, D. (2013). Differentiating cyber bullying perpetration from non-physical bullying: Commonalities across race, individual, and family predictors. *Psychology of Violence, 3*(1), 39-52. doi:10.1037/a0030308.
- Lucas, S., Jernbro, C., Tindberg, Y., Janson, S., Institutionen för hälsovedenskaper, Karlstads universitet, & Fakulteten för hälsa, natur- och teknikvetenskap (from 2013). (2016;2015;). Bully, bullied and abused. associations between violence at home and bullying in childhood. *Scandinavian Journal of Public Health, 44*(1), 27. doi:10.1177/1403494815610238.
- Luk, J. W., Wang, J., & Simons-Morton, B. G. (2010). Bullying victimization and substance use among U.S. adolescents: Mediation by depression. *Prevention Science, 11*(4), 355-359. doi:10.1007/s11121-010-0179-0.
- Lund, R., Nielsen, K. K., Hansen, D. H., Kriegbaum, M., Molbo, D., Due, P., & Christensen, U. (2009;2008;). Exposure to bullying at school and depression in adulthood: A study of Danish men born in 1953. *The European Journal of Public Health, 19*(1), 111-116. doi:10.1093/eurpub/ckn101.
- Ma, X. (2002). Bullying in middle school: Individual and school characteristics of victims and offenders. *School Effectiveness and School Improvement, 13*(1), 63-89. doi:10.1076/sexi.13.1.63.3438.

- MacDonald, C. D., & Roberts-Pittman, B. (2010). Cyberbullying among college students: Prevalence and demographic differences. *Procedia - Social and Behavioral Sciences*, 9, 2003-2009. doi:10.1016/j.sbspro.2010.12.436.
- Machackova, H., & Pfetsch, J. (2016). Bystanders' responses to offline bullying and cyberbullying: The role of empathy and normative beliefs about aggression. *Scandinavian Journal of Psychology*, 57(2), 169-176. doi:10.1111/sjop.12277.
- Madlock, P. E., & Westerman, D. (2011). Hurtful cyber-teasing and violence: Who's laughing out loud? *Journal of Interpersonal Violence*, 26(17), 3542-3560. doi:10.1177/0886260511403749.
- Magin, P. (2013). Appearance-related bullying and skin disorders. *Clinics in Dermatology*, 31(1), 66-71. doi:10.1016/j.cldermatol.2011.11.009.
- Maïano, C., Aimé, A., Salvas, M., Morin, A. J. S., & Normand, C. L. (2016). Prevalence and correlates of bullying perpetration and victimization among school-aged youth with intellectual disabilities: A systematic review. *Research in Developmental Disabilities*, 49-50, 181-195. doi:10.1016/j.ridd.2015.11.015.
- Malik, A., & Mehta, M. (2016). Bullying among adolescents in an Indian school. *Psychological Studies*, 61(3), 220-232. doi:10.1007/s12646-016-0368-4.
- Mann, M. J., Kristjansson, A. L., Sigfusdottir, I. D., & Smith, M. L. (2015). The role of community, family, peer, and school factors in group bullying: Implications for School-Based intervention. *Journal of School Health*, 85(7), 477-486. doi:10.1111/josh.12270.
- Marcum, C. D., Higgins, G. E., & Ricketts, M. L. (2014). Juveniles and cyber stalking in the United States: An analysis of theoretical predictors of patterns of online perpetration. *International Journal of Cyber Criminology*, 8(1), 47.

- Marcum, C. D., Higgins, G. E., Freiburger, T. L., & Ricketts, M. L. (2014). Exploration of the cyberbullying Victim/Offender overlap by sex. *American Journal of Criminal Justice*, 39(3), 538-548. doi:10.1007/s12103-013-9217-3.
- Marcum, C. D., Higgins, G. E., Freiburger, T. L., & Ricketts, M. L. (2012). Battle of the sexes: An examination of male and female cyber bullying. *International Journal of Cyber Criminology*, 6(1), 904-911.
- Marrugat, J., Vila, J., & Elosua, R. (2013). Is it appropriate to compare the results from two clinical trials with one drug in common? *Revista Española De Cardiología (English Edition)*, 66(2), 151-153. doi:10.1016/j.rec.2012.06.014.
- Marini, Z. A., Dane, A. V., & Bosacki, S. L. (2006). Direct and indirect bully-victims: Differential psychosocial risk factors associated with adolescents involved in bullying and victimization. *Aggressive Behavior*, 32(6), 551-569. doi:10.1002/ab.20155.
- Mark, L., & Ratliffe, K. (2011). Cyber worlds: New playgrounds for bullying. *Computers in the Schools*, 28(2), 92-116. doi:10.1080/07380569.2011.575753.
- Matsunaga, M. (2009). Parents Don't (always) know their children have been bullied: Child-parent discrepancy on bullying and family-level profile of communication standards. *Human Communication Research*, 35(2), 221-247. doi:10.1111/j.1468- 2958.2009.01345.x.
- Mayes, S. D., Calhoun, S. L., Baweja, R., & Mahr, F. (2015). Maternal ratings of bullying and victimization: Differences in frequencies between psychiatric diagnoses in a large sample of children. *Psychological Reports*, 116(3), 710-722. doi:10.2466/16.PR0.116k30w8.
- Maynard, B. R., Vaughn, M. G., Salas-Wright, C. P., & Vaughn, S. (2016). Bullying victimization among school-aged immigrant youth in the united states. *The*

*Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, 58(3), 337-344. doi:10.1016/j.jadohealth.2015.11.013.

Mayworm, A. M., Sharkey, J. D., Hunnicutt, K. L., & Schiedel, K. C. (2016). Teacher consultation to enhance implementation of school-based restorative justice. *Journal of Educational and Psychological Consultation*, 26(4), 385-412. doi:10.1080/10474412.2016.1196364.

Mazzone, A., Camodeca, M., & Salmivalli, C. (2016)a. Interactive effects of guilt and moral disengagement on bullying, defending and outsider behavior. *Journal of Moral Education*, 1-14. doi:10.1080/03057240.2016.1216399.

Mazzone, A., Camodeca, M., & Salmivalli, C. (2016)b. Stability and change of outsider behavior in school bullying: The role of shame and guilt in a longitudinal perspective. *The Journal of Early Adolescence*, doi:10.1177/0272431616659560.

McClanahan, M., McCoy, S. M., & Jacobsen, K. H. (2015). Forms of bullying reported by middle-school students in Latin America and the Caribbean. *Advances in School Mental Health Promotion*, 8(1), 42-54. doi:10.1080/1754730X.2014.978118.

McCluskey, G., Lloyd, G., Stead, J., Kane, J., Riddell, S., & Weedon, E. (2008). 'I was dead restorative today': From restorative justice to restorative approaches in school. *Cambridge Journal of Education*, 38(2), 199-216. doi:10.1080/03057640802063262.

McCuddy, T., & Vogel, M. (2015;2014;). More than just friends: Online social networks and offending. *Criminal Justice Review*, 40(2), 169-189. doi:10.1177/0734016814557010.

McDougall, P., Hymel, S., & Vaillancourt, T. (2009). What Happens Over Time To

- Those Who Bully And Those Who Are Victimized?. *Education*, 1-3.  
Retrieved from <Http://Http://www.education.com>.
- McHugh, M. L. (2013). The chi-square test of independence. *Biochimia Medica*, 23(2), 143-149.
- McMahon, E. M., Reulbach, U., Keeley, H., Perry, I. J., & Arensman, E. (2010). Bullying victimisation, self-harm and associated factors in Irish adolescent boys. *Social Science & Medicine*, 71(7), 1300-1307.  
doi:10.1016/j.socscimed.2010.06.034.
- McNicholas, C. I., & Orpinas, P. (2016). 434 prevalence of bullying victimisation among students with disabilities in the united states. *Injury Prevention*, 22(Suppl 2), A158-A158. doi:10.1136/injuryprev-2016-042156.434.
- Meland, E., Rydning, J. H., Lobben, S., Breidablik, H., & Ekeland, T. (2010). Emotional, self-conceptual, and relational characteristics of bullies and the bullied. *Scandinavian Journal of Public Health*, 38(4), 359-367.  
doi:10.1177/1403494810364563.
- Meltzer, H., Vostanis, P., Ford, T., Bebbington, P., & Dennis, M. S. (2011). Victims of bullying in childhood and suicide attempts in adulthood. *European Psychiatry*, 26(8), 498-503. doi:10.1016/j.eurpsy.2010.11.006.
- Ménard, K. S., & Pincus, A. L. (2012;2011;). Predicting overt and cyber stalking perpetration by male and female college students. *Journal of Interpersonal Violence*, 27(11), 2183-2207. doi:10.1177/0886260511432144.
- Menard, S. (2009). *Logistic regression: From introductory to advanced concepts and applications*. Sage Publications. Thousand Oaks, CA.
- Menesini, E., & Camodeca, M. (2008). Shame and guilt as behaviour regulators: Relationships with bullying, victimization and prosocial behaviour. *British*

*Journal of Developmental Psychology, 26(2), 183-196.*

doi:10.1348/026151007X205281.

Menesini, E., Nocentini, A., & Camodeca, M. (2013). Morality, values, traditional bullying, and cyberbullying in adolescence: Morality and values in cyber and traditional bullying. *British Journal of Developmental Psychology, 31(1),* 1-14. doi:10.1111/j.2044-835X.2011.02066.x.

Menesini, E., Sanchez, V., Fonzi, A., Ortega, R., Costabile, A., & Lo Feudo, G. (2003). Moral emotions and bullying: A cross-national comparison of differences between bullies, victims and outsiders. *Aggressive Behavior, 29(6),* 515-530. doi:10.1002/ab.10060.

Merrill, R. M., & Hanson, C. L. (2016). Risk and protective factors associated with being bullied on school property compared with cyberbullied. *BMC Public Health, 16(1),* 145.

Messias, E., Kindrick, K., & Castro, J. (2014). School bullying, cyberbullying, or both: Correlates of teen suicidality in the 2011 CDC youth risk behavior survey. *Comprehensive Psychiatry, 55(5),* 1063-1068.

doi:10.1016/j.comppsych.2014.02.005.

Mickelson, W., Eagle, J., Swearer, S., Song, S., & Cary, P. (2001). Psychosocial correlates in bullying and victimization: The relationship between depression, anxiety, and Bully/Victim status. *Journal of Emotional Abuse, 2(2),* 95-121.

doi:10.1300/J135v02n02\_07.

Mishna, F., Cook, C., Gadalla, T., Daciuk, J., & Solomon, S. (2010). Cyber bullying behaviors among middle and high school students. *American Journal of Orthopsychiatry, 80(3),* 362-374. doi:10.1111/j.1939-0025.2010.01040.x.

Mishna, F., Khoury-Kassabri, M., Gadalla, T., & Daciuk, J. (2012). Risk factors for involvement in cyber bullying: Victims, bullies and bully-victims. *Children and Youth Services Review*, 34(1), 63-70.

doi:10.1016/j.childyouth.2011.08.032.

Mishna, F., Saini, M., & Solomon, S. (2009). Ongoing and online: Children and youth's perceptions of cyber bullying. *Children and Youth Services Review*, 31(12), 1222- 1228. doi:10.1016/j.childyouth.2009.05.004.

Mishna, F., Wiener, J., & Pepler, D. (2008). Some of my best Friends-Experiences of bullying within friendships. *School Psychology International*, 29(5), 549-573.

doi:10.1177/0143034308099201.

Mitsopoulou, E., & Giovazolias, T. (2015). Personality traits, empathy and bullying behavior: A meta-analytic approach. *Aggression and Violent Behavior*, 21, 61-72. doi:10.1016/j.avb.2015.01.007.

Mlisa, L. N., Ward, C. L., Flisher, A. J., & Lombard, C. J. (2008). Bullying at rural high schools in the eastern cape province, south Africa: Prevalence, and risk and protective factors at school and in the family. *Journal of Psychology in Africa*, 18(2), 261. doi:10.1080/14330237.2008.10820195.

Modecki, K. L., Barber, B. L., & Vernon, L. (2013). Mapping developmental precursors of cyber-aggression: Trajectories of risk predict perpetration and victimization. *Journal of Youth and Adolescence*, 42(5), 651-661.

doi:10.1007/s10964-012-9887-z.

Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health*, 55(5), 602-611.

doi:10.1016/j.jadohealth.2014.06.007.

- Modestin, J., Thiel, C., & Erni, T. (2002). Relationship of criminality to endogeneity and anxiety in patients with unipolar depression. *Psychiatry and Clinical Neurosciences*, 56(2), 153-159. doi:10.1046/j.1440-1819.2002.00942.x.
- Monks, C. P., Mahdavi, J., & Rix, K. (2016). The emergence of cyberbullying in childhood: Parent and teacher perspectives. *Psicología Educativa*, 22(1), 39-48. doi:10.1016/j.pse.2016.02.002.
- Moon, B., & Alarid, L. F. (2015). School bullying, low self-control, and opportunity. *Journal of Interpersonal Violence*, 30(5), 839-856. doi:10.1177/0886260514536281.
- Moon, B., Morash, M., & McCluskey, J. D. (2012). General Strain Theory and School Bullying: An Empirical Test in South Korea. *Crime & Delinquency*, 58(6), 827-855. <https://doi.org/10.1177/0011128710364809>.
- Moore, B., & Woodcock, S. (2016). Resilience to bullying: Towards an alternative to the anti-bullying approach. *Educational Psychology in Practice*, 1-16. doi:10.1080/02667363.2016.1233488.
- Morahan-Martin, J., & Schumacher, P. (2003). Loneliness and social uses of the Internet. *Computers in Human Behavior*, 19(6), 659-671. doi:10.1016/S0747-5632(03)00040-2.
- Morales, J. F., Yubero, S., & Larrañaga, E. (2016). Gender and bullying: Application of a three-factor model of gender stereotyping. *Sex Roles*, 74(3), 169-180. doi:10.1007/s11199-015-0463-3.
- Morgan, H. (2013). Malicious use of technology: What schools, parents, and teachers can do to prevent cyberbullying. *Childhood Education*, 89(3), 146-151. doi:10.1080/00094056.2013.792636.

- Morin, K. H., Bradshaw, P. C., & Berg, K. J. (2015). Examining the link between peer victimization and adjustment problems in adolescents: The role of connectedness and parent engagement. *Psychology of Violence, 5*(4), 422-432. doi:10.1037/a0039798.
- Morrison, B. (2006). School bullying and restorative justice: Toward a theoretical understanding of the role of respect, pride, and shame. *Journal of Social Issues, 62*(2), 371-392. doi:10.1111/j.1540-4560.2006.00455.x.
- Morrow, A., & Downey, C. A. (2013). Perceptions of adolescent bullying: Attributions of blame and responsibility in cases of cyber-bullying. *Scandinavian Journal of Psychology, 54*(6), 536-540. doi:10.1111/sjop.12074.
- Mosia, P. A. (2015). The prevalence of bullying at high schools in Lesotho: Perspectives of teachers and students. *Africa Education Review, 12*(2), 161-179. doi:10.1080/18146627.2015.1107971.
- Mount, G. (2005). Bullying: Characteristics, consequences and interventions. *Journal of Police Crisis Negotiations, 5*(2), 125-129. doi:10.1300/J173v05n02\_11.
- Mueller, A. S., James, W., Abrutyn, S., & Levin, M. L. (2015). Suicide ideation and bullying among US adolescents: Examining the intersections of sexual orientation, gender, and race/ethnicity. *American Journal of Public Health, 105*(5), 980-985. doi:10.2105/AJPH.2014.302391.
- Muñoz, L. C., Qualter, P., & Padgett, G. (2011). Empathy and bullying: Exploring the influence of callous-unemotional traits. *Child Psychiatry & Human Development, 42*(2), 183-196. doi:10.1007/s10578-010-0206-1.
- Mura, G., Topcu, C., Erdur-Baker, O., & Diamantini, D. (2011). An international study of cyber bullying perception and diffusion among adolescents. *Procedia*

- *Social and Behavioral Sciences*, 15, 3805-3809.

doi:10.1016/j.sbspro.2011.04.377.

Murray-Harvey, R., & Slee, P. T. (2010). School and home relationships and their impact on school bullying. *School Psychology International*, 31(3), 271-295.  
doi:10.1177/0143034310366206.

Myers, C-A. & Cowie, H. (2017). Bullying at University: The Social and Legal Contexts of Cyberbullying Among University Students. *Journal of Cross-Cultural Psychology*, 48(8), pp. 1172-1182. doi: 10.1177/0022022116684208 .

NABC. (2015). *Bullying: The Prevalence of Bullying in Irish Schools*. Retrieved from <http://nabc.ie/index.php?id=35>.

Nansel, T. R., Overpeck, M.D., Haynie, D.L., Ruan, J., & Scheidt, P.C. (2003). Relationships between bullying and violence among U.S. youth. *Archives of Pediatric and Adolescent Medicine*, 157(4), 348-353.  
doi:10.1001/archpedi.157.4.348.

Napoletano, A., Elgar, F. J., Saul, G., Dirks, M., & Craig, W. (2016). The view from the bottom: Relative deprivation and bullying victimization in Canadian adolescents. *Journal of Interpersonal Violence*, 31(20), 3443-3463.  
doi:10.1177/0886260515585528.

Navarro, R., Larrañaga, E., & Yubero, S. (2016;2015;). Gender identity, gender-typed personality traits and school bullying: Victims, bullies and bully-victims. *Child Indicators Research*, 9(1), 1-20. doi:10.1007/s12187-015-9300-z

Navarro, R., Serna, C., Martínez, V., & Ruiz-Oliva, R. (2013;2012;). The role of Internet use and parental mediation on cyberbullying victimization among Spanish children from rural public schools. *European Journal of Psychology of Education*, 28(3), 725-745. doi:10.1007/s10212-012-0137-2.

- Navarro, R., Yubero, S., & Larrañaga, E. (2015). Psychosocial risk factors for involvement in bullying behaviors: Empirical comparison between cyberbullying and social bullying victims and bullies. *School Mental Health*, 7(4), 235-248. doi:10.1007/s12310-015-9157-9.
- Newman, M., Woodcock, A., & Dunham, P. (2006). 'playtime in the borderlands': Children's representations of school, gender and bullying through photographs and interviews. *Children's Geographies*, 4(3), 289-302. doi:10.1080/14733280601005617.
- NHS. (2015). *Copying with Cyberbullying*. Retrieved from <http://www.nhs.uk/Livewell/Bullying/Pages/Cyberbullying.aspx>.
- Nikken, P., & Schols, M. (2015). How and why parents guide the media use of young children. *Journal of Child and Family Studies*, 24(11), 3423-3435. doi:10.1007/s10826-015-0144-4.
- Nilan, P., Burgess, H., Hobbs, M., Threadgold, S., & Alexander, W. (2015). Youth, social media, and cyberbullying among Australian youth: "Sick friends". *Social Media + Society*, 1(2) doi:10.1177/2056305115604848.
- Nishina, A., Witkow, M. R., & Juvonen, J. (2005). Sticks and stones may break my bones, but names will make me feel sick: The psychosocial, somatic, and scholastic consequences of peer harassment. *Journal of Clinical Child & Adolescent Psychology*, 34(1), 37-48. doi:10.1207/s15374424jccp3401\_4.
- NoBullying. (2015, September 10). Cyber Bullying Statistics 2014 [Web log post]. Retrieved from <http://nobullying.com/cyber-bullying-statistics-2014/>.
- Noorden, T. H. J. v., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2015). Empathy and involvement in bullying in children and adolescents: A

- systematic review. *Journal of Youth and Adolescence*, 44(3), 637-657.  
doi:10.1007/s10964-014-0135-6.
- Novick, R. M., & Isaacs, J. (2010). Telling is compelling: The impact of student reports of bullying on teacher intervention. *Educational Psychology*, 30(3), 283. doi:10.1080/01443410903573123.
- NSPCC. (2015). *Bullying and cyberbullying Facts and statistics*. Retrieved from <http://www.nspcc.org.uk/preventing-abuse/child-abuse-and-neglect/bullying-and-cyberbullying/bullying-cyberbullying-statistics/>.
- Nuccitelli, M. (2012). 2012 cyber bullying tactics. *Forensic Examiner*, 21(3), 24.
- Nunn, K. P. (2010). Bullying. *Journal of Paediatrics and Child Health*, 46(4), 140-141. doi:10.1111/j.1440-1754.2010.01769.x.
- O'Brien, C. (2011). Young people's comparisons of cross-gender and same-gender bullying in British secondary schools. *Educational Research*, 53(3), 257. doi:10.1080/00131881.2011.598658.
- O'Malley Olsen, E., Kann, L., Vivolo-Kantor, A., Kinchen, S., & McManus, T. (2014). School violence and bullying among sexual minority high school students, 2009-2011. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, 55(3), 432. doi:10.1016/j.jadohealth.2014.03.002.
- O'Moore, M., & Kirkham, C. (2001). Self-esteem and its relationship to bullying behaviour. *Aggressive Behavior*, 27(4), 269-283. doi:10.1002/ab.1010.
- Office for National Statistics (2018). Internet Access – Households and Individuals. Great Britain. Accessed on 13 of March 2019 at:  
<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteris>

tics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsand  
ndividuals/2018.

Obermann, M. (2011). Moral disengagement in self-reported and peer-nominated school bullying. *Aggressive Behavior*, 37(2), 133-144. doi:10.1002/ab.20378.

Olthof, T. (2012). Anticipated feelings of guilt and shame as predictors of early adolescents' antisocial and prosocial interpersonal behaviour. *European Journal of Developmental Psychology*, 9(3), 371-388.  
doi:10.1080/17405629.2012.680300.

Oluyinka, O. A. (2008). Social-psychological factors associated with bullying behaviour among secondary school students. *Journal of Psychology in Africa*, 18(2), 269. doi:10.1080/14330237.2008.10820196.

Olweus, D. (1991). Bully/victim problems among school children: Some basic facts and effects of a school- based intervention program. In D. Pepler & K. Rubin (Eds.), *The Development and Treatment of Childhood Aggression* (pp. 411–448). Hillsdale: Hillsdale Press.

Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford, UK: Blackwell Publishers.

Olweus, D. (1993). *Victimisation by peers: Antecedents and long-term outcomes*. In K.H. Rubin and J.B. Asendorpf (eds.) *Social withdrawal, inhibition and shyness in childhood* (pp. 315-341), Erlbaum, Hillsdale, NJ.

Olweus, D. (2003). A profile of bullying at school. *Educational Leadership*, 60, 12–17. Retrieved from  
[http://www.lhsenglish.com/uploads/7/9/0/8/7908073/olweus\\_profile\\_of\\_bullying.pdf](http://www.lhsenglish.com/uploads/7/9/0/8/7908073/olweus_profile_of_bullying.pdf).

- Osborne, J., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical assessment, research & evaluation*, 8(2), 1-9.
- Oser, C. B. (2006). The criminal offending-self-esteem nexus: Which version of the self-esteem theory is supported? *The Prison Journal*, 86(3), 344-363.  
doi:10.1177/0032885506291024.
- Oyedemi, T. (2015). Digital xenophobia: The bullying of 'self' and the cultural caricature of a criminal Nigerian 'other'. *South African Review of Sociology*, 46(2), 60. doi:10.1080/21528586.2014.999113.
- Özgür, H. (2016). The relationship between internet parenting styles and internet usage of children and adolescents. *Computers in Human Behavior*, 60, 411-424. doi:10.1016/j.chb.2016.02.081.
- Pabian, S., & Vandebosch, H. (2016). Short-term longitudinal relationships between adolescents' (cyber)bullying perpetration and bonding to school and teachers. *International Journal of Behavioral Development*, 40(2), 162-172.  
doi:10.1177/0165025415573639.
- Palladino, B. E., Nocentini, A., & Menesini, E. (2016). Evidence-based intervention against bullying and cyberbullying: Evaluation of the NoTrap! Program in two independent trials. *Aggressive Behavior*, 42(2), 194-206.  
doi:10.1002/ab.21636.
- Pan, S. W., & Spittal, P. M. (2013). Health effects of perceived racial and religious bullying among urban adolescents in china: A cross-sectional national study. *Global Public Health*, 8(6), 685.

Parris, L., Varjas, K., Meyers, J., & Cutts, H. (2012;2011;). High school students' perceptions of coping with cyberbullying. *Youth & Society*, 44(2), 284-306. doi:10.1177/0044118X11398881.

Patchin, J.W., & Hinduja, S. (2006). Bullies move beyond the schoolyard: A preliminary look at cyberbullying. *Youth Violence and Juvenile Justice*, 4, 148–169.

Patchin, J. W., & Hinduja, S. (2010). Cyberbullying and Self-Esteem. *Journal of School Health*, 80(12), 614-621. doi:10.1111/j.1746-1561.2010.00548.x.

Patrick, D. L., Bell, J. F., Huang, J. Y., Lazarakis, N. C., & Edwards, T. C. (2013). Bullying and quality of life in youths perceived as gay, lesbian, or bisexual in Washington state, 2010. *American Journal of Public Health*, 103(7), 1255-1261. doi:10.2105/AJPH.2012.301101.

Paul, S., Smith, P. K., & Blumberg, H. H. (2012). Revisiting cyberbullying in schools using the quality circle approach. *School Psychology International*, 33(5), 492-504. doi:10.1177/0143034312445243.

Payne, A. A., & Welch, K. (2015;2013;). Restorative justice in schools: The influence of race on restorative discipline. *Youth & Society*, 47(4), 539-564. doi:10.1177/0044118X12473125.

Pearson, S. (2005). Bullying in secondary schools. What it looks like and how to manage it. *Child and Adolescent Mental Health*, 10(2), 105-106. doi:10.1111/j.1475-3588.2005.00125\_5.x.

Peguero, A. A., & Williams, L. M. (2013). Racial and ethnic stereotypes and bullying victimization. *Youth & Society*, 45(4), 545-564.

Pellegrini, A. D., Bartini, M., & Brooks, F. (1999). School bullies, victims, and aggressive victims: Factors relating to group affiliation and victimization in

- early adolescence. *Journal of Educational Psychology*, 91(2), 216-224.  
doi:10.1037/0022-0663.91.2.216.
- Pengpid, S., & Peltzer, K. (2013). Bullying and its associated factors among school-aged adolescents in Thailand. *The Scientific World Journal*, 2013, 254083-6.  
doi:10.1155/2013/254083.
- Pepler, D., Jiang, D., Craig, W., & Connolly, J. (2008). Developmental trajectories of bullying and associated factors. *Child Development*, 79(2), 325-338.  
doi:10.1111/j.1467-8624.2007.01128.x.
- Perren, S., & Alsaker, F. D. (2006). Social behavior and peer relationships of victims, bully-victims, and bullies in kindergarten. *Journal of Child Psychology and Psychiatry*, 47(1), 45-57. doi:10.1111/j.1469-7610.2005.01445.x.
- Perren, S., & Gutzwiller-Helfenfinger, E. (2012). Cyberbullying and traditional bullying in adolescence: Differential roles of moral disengagement, moral emotions, and moral values. *European Journal of Developmental Psychology*, 9(2), 195. doi:10.1080/17405629.2011.643168.
- Perren, S., Corcoran, L., Cowie, H., Dehue, F., Garcia, D., McGuckin, C., . . . Völlink, T. (2012). Tackling cyberbullying: Review of empirical evidence regarding successful responses by students, parents, and schools. *International Journal of Conflict and Violence*, 6(2), 283.
- Persson, M., Svensson, M., Karlstads universitet, Fakulteten för ekonomi, kommunikation och IT, & Avdelningen för nationalekonomi och statistik. (2013). The willingness to pay to reduce school bullying. *Economics of Education Review*, 35, 1-11. doi:10.1016/j.econedurev.2013.02.004.
- Phillips J, Springer F. Extended National Youth Sports Program 1991-92 evaluation highlights, part two: Individual Protective Factors Index (IPFI) and risk

- assessment study. Report prepared for the National Collegiate Athletic Association. Sacramento, CA: EMT Associates, 1992. (Unpublished).
- Pigozi, P. L., & Jones Bartoli, A. (2016;2015;). School nurses' experiences in dealing with bullying situations among students. *The Journal of School Nursing*, 32(3), 177-185. doi:10.1177/1059840515613140.
- Pillay, A. L., & Willows, C. (2015). Assessing the criminal capacity of children: A challenge to the capacity of mental health professionals. *Journal of Child & Adolescent Mental Health*, 27(2), 91-101.  
doi:10.2989/17280583.2015.1040412.
- Piquero, A. R. (2013). Youth matters: The meaning of miller for theory, research, and policy regarding developmental/life-course criminology. *New England Journal on Criminal & Civil Confinement*, 39(2), 347.
- Plutchik R, Van-Praag H. The measurement of suicidality, aggressivity and impulsivity. *Progress in Neuro-Psychopharmacology and Biological Psychiatry* 1989;13 (Suppl) S23-S34.
- Polan, J. C., Sieving, R. E., & McMorris, B. J. (2013). Are young adolescents' social and emotional skills protective against involvement in violence and bullying behaviors? *Health Promotion Practice*, 14(4), 599-606.
- Pollastri, A. R., Cardemil, E. V., & O'Donnell, E. H. (2010). Self-esteem in pure bullies and Bully/Victims: A longitudinal analysis. *Journal of Interpersonal Violence*, 25(8), 1489-1502. doi:10.1177/0886260509354579.
- Pornari, C. D., & Wood, J. (2010). Peer and cyber aggression in secondary school students: The role of moral disengagement, hostile attribution bias, and outcome expectancies. *Aggressive Behavior*, 36(2), 81. doi:10.1002/ab.20336.

- Porter, J. R., & Smith-Adcock, S. (2011). Children who help victims of bullying: Implications for practice. *International Journal for the Advancement of Counselling*, 33(3), 196-205. doi:10.1007/s10447-011-9121-9.
- Pottie, K., Dahal, G., Georgiades, K., Premji, K., & Hassan, G. (2015). Do first generation immigrant adolescents face higher rates of bullying, violence and suicidal behaviours than do third generation and native born? *Journal of Immigrant and Minority Health*, 17(5), 1557-1566. doi:10.1007/s10903-014-0108-6.
- Pozzoli, T., Gini, G., & Vieno, A. (2012). Individual and class moral disengagement in bullying among elementary school children. *Aggressive Behavior*, 38(5), 378-388. doi:10.1002/ab.21442.
- Price, M. (2012). Morality: What is it good for? *Global Custodian*. Retrieved from <https://hud.summon.serialssolutions.com/search?>
- Price, M., Chin, M. A., Higa-McMillan, C., Kim, S., & Christopher Frueh, B. (2013). Prevalence and internalizing problems of ethnoracially diverse victims of traditional and cyber bullying. *School Mental Health*, 5(4), 183-191. doi:10.1007/s12310-013-9104-6.
- Price, J (1996) 'Snakes in the swamp: ethical issues in qualitative research' in R. Josselson (eds).
- Puhl, R. M., & King, K. M. (2013). Weight discrimination and bullying. Best Practice and Research: *Clinical Endocrinology and Metabolism*, 27(2), 117-127. doi:10.1016/j.beem.2012.12.002.
- Puhl, R. M., Suh, Y., & Li, X. (2016). Improving anti-bullying laws and policies to protect youth from weight-based victimization: Parental support for action:

Improving anti-bullying laws and policies. *Pediatric Obesity*,

doi:10.1111/ijpo.12129.

Purdy, N., & McGuckin, C. (2015). Disablist bullying in schools: Giving a voice to student teachers. *Journal of Research in Special Educational Needs*, 15(3), 202-210. doi:10.1111/1471-3802.12110.

Purdy, N., & Smith, P. K. (2016). A content analysis of school anti-bullying policies in northern Ireland. *Educational Psychology in Practice*, 32(3), 281-295. doi:10.1080/02667363.2016.1161599.

Pyżalski, J. (2012). From cyberbullying to electronic aggression: Typology of the phenomenon. *Emotional and Behavioural Difficulties*, 17(3-4), 305. doi:10.1080/13632752.2012.704319.

Raaska, H., Lapinleimu, H., Sinkkonen, J., Salmivalli, C., Matomäki, J., Mäkipää, S., & Elovainio, M. (2012). Experiences of school bullying among internationally adopted children: Results from the Finnish adoption (FINADO) study. *Child Psychiatry and Human Development*, 43(4), 592-611. doi:10.1007/s10578-012-0286-1.

Rachoene, M., & Oyedemi, T. (2015). From self-expression to social aggression: Cyberbullying culture among south African youth on Facebook. *Communication*, 41(3), 302-319. doi:10.1080/02500167.2015.1093325.

Rafferty, R., & Vander Ven, T. (2014). "I hate everything about you": A qualitative examination of cyberbullying and on-line aggression in a college sample. *Deviant Behavior*, 35(5), 364-377. doi:10.1080/01639625.2013.849171.

Rafiq, R. I., HosseiniMardi, H., Mattson, S. A., Han, R., Lv, Q., & Mishra, S. (2016). Analysis and detection of labelled cyberbullying instances in vine, a video-

- based social network. *Social Network Analysis and Mining*, 6(1), 1-16.  
doi:10.1007/s13278-016-0398-x.
- Rajendran, K., Kruszewski, E., & Halperin, J. M. (2016). Parenting style influences bullying: A longitudinal study comparing children with and without behavioral problems. *Journal of Child Psychology and Psychiatry*, 57(2), 188-195. doi:10.1111/jcpp.12433.
- Ramchand, R., MacDonald, J. M., Haviland, A., & Morral, A. R. (2009). A developmental approach for measuring the severity of crimes. *Journal of Quantitative Criminology*, 25(2), 129-153. doi:10.1007/s10940-008-9061-7.
- Ramírez, J. M., & Andreu, J. M. (2006). Aggression, and some related psychological constructs (anger, hostility, and impulsivity) some comments from a research project. *Neuroscience and Biobehavioral Reviews*, 30(3), 276-291.  
doi:10.1016/j.neubiorev.2005.04.015.
- Ramirez, O. (2013). Survivors of school bullying: A collective case study. *Children & Schools*, 35(2), 93-99. doi:10.1093/cs/cdt001.
- Randa, R., Nobles, M., & Reyns, B. (2015). Is cyberbullying a stand-alone construct? using quantitative analysis to evaluate a 21st century social question. *Societies*, 5(1), 171-186. doi:10.3390/soc5010171.
- Raskauskas, J. (2009; 2010;). Text-bullying: Associations with traditional bullying and depression among New Zealand adolescents. *Journal of School Violence*, 9(1), 74-97. doi:10.1080/15388220903185605.
- Raskauskas, J., & Modell, S. (2011). Modifying anti-bullying programs to include students with disabilities. *Teaching Exceptional Children*, 44(1), 60-67.  
doi:10.1177/004005991104400107.

- Rech, R. R., Halpern, R., Tedesco, A., & Santos, D. F. (2013). Prevalence and characteristics of victims and perpetrators of bullying. *Jornal De Pediatria*, 89(2), 164-170. doi:10.1016/j.jped.2013.03.006.
- Reed, K. P., Nugent, W., & Cooper, R. L. (2015). Testing a path model of relationships between gender, age, and bullying victimization and violent behaviour, substance abuse, depression, suicidal ideation, and suicide attempts in adolescents. *Children and Youth Services Review*, 55, 128-137. doi:10.1016/j.chillyouth.2015.05.016.
- Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect*, 34(4), 244-252. doi:10.1016/j.chab.2009.07.009.
- Renshaw, D. C. (2001). bullies. *The Family Journal*, 9(3), 341-342. doi:10.1177/1066480701093016.
- Richards, N. (1997). Criminal children. *Law and Philosophy*, 16(1), 63-89. doi:10.1023/A:100571043005.
- Rieffe, C., Camodeca, M., Pouw, L. B. C., Lange, A. M. C., & Stockmann, L. (2012). Don't anger me! Bullying, victimization, and emotion dysregulation in young adolescents with ASD. *European Journal of Developmental Psychology*, 9(3), 351. doi:10.1080/17405629.2012.680302.
- Rigby, K. (2002). *New perspectives on bullying*. London, UK: Jessica Kingsley.
- Rigby, K. (2007). *Bullying in schools and what to do about it: Revised and updated*. Australian Council for Educational Research. London, UK: Jessica Kingsley.

- Rigby, K., & Cox, I. (1996). The contribution of bullying at school and low self-esteem to acts of delinquency among Australian teenagers. *Personality and Individual Differences*, 21(4), 609-612. doi:10.1016/0191-8869(96)00105-5.
- Rigby, K., & Smith, P. K. (2011). Is school bullying really on the rise? *Social Psychology of Education*, 14(4), 441-455. doi:10.1007/s11218-011-9158-y.
- Rivers, I., & Noret, N. (2010). 'I h8 u': Findings from a five-year study of text and email bullying. *British Educational Research Journal*, 36(4), 643-671. doi:10.1080/01411920903071918.
- Roberts, D. F., & Foehr, U. G. (2008). Trends in media use. *The Future of Children*, 18(1), 11-37. doi:10.1353/foc.0.0000.
- Roberts, W., Strayer, J., & Denham, S. (2014). Empathy, anger, guilt: Emotions and prosocial behaviour. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, 46(4), 465-474. doi:10.1037/a0035057.
- Robson, C., & Witenberg, R. T. (2013). The influence of moral disengagement, morally based self-esteem, age, and gender on traditional bullying and cyberbullying. *Journal of School Violence*, 12(2), 211-231. doi:10.1080/15388220.2012.762921.
- Rokach, A. (2000). Offence type and the experience of loneliness. *International Journal of Offender Therapy and Comparative Criminology*, 44(5), 549-563. doi:10.1177/0306624X00445003.
- Rokach, A. (2001). Criminal offense type and the causes of loneliness. *The Journal of Psychology*, 135(3), 277-291. doi:10.1080/00223980109603698.
- Roland, E. (1989). Bullying: The Scandinavian research tradition. In D. Tattum & D. Lane (Eds.), *Bullying in Schools* (pp. 21–32). Stoke-on-Trent: Trentham.

- Roland, E. (2002). Aggression, depression, and bullying others. *Aggressive Behaviour*, 28(3), 198-206. doi:10.1002/ab.90022.
- Roland, E., & Idsøe, T. (2001). Aggression and bullying. *Aggressive Behavior*, 27(6), 446-462. doi:10.1002/ab.1029.
- Rosan, A. M., & Costea-Barluti, C. (2013). associations between callous-unemotional traits, aggression and psychopathology in detained adolescent males. *Journal of Cognitive and Behavioral Psychotherapies*, 13(2), 397.
- Rose, C. A., & Espelage, D. L. (2012). Risk and protective factors associated with the bullying involvement of students with emotional and behavioral disorders. *Behavioral Disorders*, 37(3), 133-148.
- Rose, C. A., Simpson, C. G., & Ellis, S. K. (2016). The relationship between school belonging, sibling aggression and bullying involvement: Implications for students with and without disabilities. *Educational Psychology*, 36(8), 1462-1486. doi:10.1080/01443410.2015.1066757.
- Rose, C. A., Simpson, C. G., & Moss, A. (2015)a. The bullying dynamic: prevalence of involvement among a large sample of middle and high school youth with and without disabilities: The bullying dynamic. *Psychology in the Schools*, 52(5), 515-531. doi:10.1002/pits.21840.
- Rosenthal, L., Earnshaw, V. A., Carroll-Scott, A., Henderson, K. E., Peters, S. M., McCaslin, C., & Ickovics, J. R. (2015). Weight- and race-based bullying: Health associations among urban adolescents. *Journal of Health Psychology*, 20(4), 401-412. doi:10.1177/1359105313502567.
- Ross, S. W., & Horner, R. H. (2014). Bully prevention in positive behavior support: Preliminary evaluation of third-, fourth-, and fifth-grade attitudes toward

- bullying. *Journal of Emotional and Behavioral Disorders*, 22(4), 225-236.  
doi:10.1177/1063426613491429.
- Runions, K. C., & Bak, M. (2015). Online moral disengagement, cyberbullying, and cyber-aggression. *Cyberpsychology, Behavior, and Social Networking*, 18(7), 4-405. doi:10.1089/cyber.2014.0670.
- Russell, S. T., Day, J. K., Ioverno, S., & Toomey, R. B. (2016). Are school policies focused on sexual orientation and gender identity associated with less bullying? teachers' perspectives. *Journal of School Psychology*, 54, 29-38.  
doi:10.1016/j.jsp.2015.10.005
- Ryan, K. N., & Curwen, T. (2013). Cyber-victimized students: Incidence, impact, and intervention. *SAGE Open*, 3(4) doi:10.1177/2158244013516772.
- Sabella, R. A., Patchin, J. W., & Hinduja, S. (2013). Cyberbullying myths and realities. *Computers in Human Behavior*, 29(6), 2703.  
doi:10.1016/j.chb.2013.06.040.
- Saha, T., & Srivastava, A. (2014). Indian women at risk in the cyber space: A conceptual model of reasons of victimization. *International Journal of Cyber Criminology*, 8(1), 57.
- Sakellariou, T., Carroll, A., & Houghton, S. (2012). Rates of cyber victimization and bullying among male Australian primary and high school students. *School Psychology International*, 33(5), 533-549. doi:10.1177/0143034311430374.
- Salmivalli, C., Kaukiainen, A., & Voeten, M. J. M. (2005). Anti-bullying intervention: Implementation and outcome. *British Journal of Educational Psychology*, 75(Pt 3), 465-488. doi:10.1348/000709905X26011.
- Salmivalli, C., Kaukiainen, A., Kaistaniemi, L., & Lagerspetz, K. M. J. (1999). Self-evaluated self-esteem, peer-evaluated self-esteem, and defensive egotism as

predictors of adolescents' participation in bullying situations. *Personality and Social Psychology Bulletin*, 25(10), 1268-1278.  
doi:10.1177/0146167299258008.

Salmivalli, C., Sentse, M., Dijkstra, J. K., & Cillessen, A. H. N. (2013). The dynamics of friendships and victimization in adolescence: A longitudinal social network perspective. *Aggressive Behavior*, 39(3), 229-238. doi:10.1002/ab.21469.

Sampasa-Kanyinga, H., Roumeliotis, P., Farrow, C. V., & Shi, Y. F. (2014). Breakfast skipping is associated with cyberbullying and school bullying victimization. A school-based cross-sectional study. *Appetite*, 79, 76-82.  
doi:10.1016/j.appet.2014.04.007.

Santalahti, P., Sourander, A., Aromaa, M., Helenius, H., Ilkäheimo, K., & Piha, J. (2008). Victimization and bullying among 8-year-old Finnish children: A 10-year comparison of rates. *European Child & Adolescent Psychiatry*, 17(8), 463-472. doi:10.1007/s00787-008-0688-6.

Sapouna, M., & Wolke, D. (2013). Resilience to bullying victimization: The role of individual, family and peer characteristics. *Child Abuse & Neglect*, 37(11), 997. doi:10.1016/j.chabu.2013.05.009.

Sari, S. V., & Camadan, F. (2016). The new face of violence tendency: Cyber bullying perpetrators and their victims. *Computers in Human Behavior*, 59, 317-326. doi:10.1016/j.chb.2016.02.027.

Saridakis, G., Benson, V., Ezingeard, J., & Tennakoon, H. (2016). Individual information security, user behaviour and cyber victimisation: An empirical study of social networking users. *Technological Forecasting and Social Change*, 102, 320-330. doi:10.1016/j.techfore.2015.08.012.

- Sawyer, J., Mishna, F., Pepler, D., & Wiener, J. (2011). The missing voice: Parents' perspectives of bullying. *Children and Youth Services Review*, 33(10), 1795-1803. doi:10.1016/j.childyouth.2011.05.010.
- Schäfer, M., Korn, S., Brodbeck, F. C., Wolke, D., & Schulz, H. (2005). Bullying roles in changing contexts: The stability of victim and bully roles from primary to secondary school. *International Journal of Behavioral Development*, 29(4), 323-335. doi:10.1080/01650250544000107.
- Scheithauer, H., Hayer, T., & Petermann, F. (2006). Physical, verbal, and relational forms of bullying among German students: Age trends, gender differences, and correlates. *Aggressive Behavior*, 32(3), 261-275. doi:10.1002/ab.20128.
- Schenk, A. M., Fremouw, W. J., & Keelan, C. M. (2013). Characteristics of college cyberbullies. *Computers in Human Behavior*, 29(6), 2320-2327. doi:10.1016/j.chb.2013.05.013.
- Schmidt, A. F., & Finan, C. (2018). Linear regression and the normality assumption. *Journal of Clinical Epidemiology*, 98, 146-151. doi:10.1016/j.jclinepi.2017.12.006.
- Schneider, S. K., O'Donnell, L., Stueve, A., & Coulter, R. W. S. (2012). Cyberbullying, school bullying, and psychological distress: A regional census of high school students. *American Journal of Public Health*, 102(1), 171-177. doi:10.2105/AJPH.2011.300308.
- Schultze-Krumbholz, A., Schultze, M., Zagorscak, P., Wölfer, R., & Scheithauer, H. (2016;2015;). Feeling cybervictims' pain—The effect of empathy training on cyberbullying. *Aggressive Behavior*, 42(2), 147-156. doi:10.1002/ab.21613.

- Schumann, L., Craig, W., & Rosu, A. (2013). minority in the majority: Community ethnicity as a context for racial bullying and victimization. *Journal of Community Psychology*, 41(8), 959-972. doi:10.1002/jcop.21585.
- Schwartz, D., McFadyen-Ketchum, S., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1999). Early behavior problems as a predictor of later peer group victimization: Moderators and mediators in the pathways of social risk. *Journal of Abnormal Child Psychology*, 27(3), 191-201. doi:10.1023/A:1021948206165.
- Scott, J. G., Moore, S. E., Sly, P. D., & Norman, R. E. (2014). Bullying in children and adolescents: A modifiable risk factor for mental illness. *Australian & New Zealand Journal of Psychiatry*, 48(3), 209-212.
- Seager-Smith, L. (2016). Schools' anti-bullying policies should frequently be reviewed. *British Journal of School Nursing*, 11(9), 425-426. doi:10.12968/bjsn.2016.11.9.425.
- Seeds, P., Harkness, K., & Quilty, L. (2010). Parental maltreatment, bullying, and adolescent depression: Evidence for the mediating role of perceived social support. *Journal of Clinical Child & Adolescent Psychology*, 39(5), 681-692. doi:10.1080/15374416.2010.501289.
- Seigfried-Spellar, K. C., & Treadway, K. N. (2014). Differentiating hackers, identity thieves, cyberbullies, and virus writers by college major and individual differences. *Deviant Behavior*, 35(10), 782-803. doi:10.1080/01639625.2014.884333.
- Semenyna, S. W., & Vasey, P. L. (2016). Bullying, physical aggression, gender-atypicality, and sexual orientation in Samoan males. *Archives of Sexual Behavior*, doi:10.1007/s10508-015-0676-0.

- Sentse, M., Kretschmer, T., & Salmivalli, C. (2015). The longitudinal interplay between bullying, victimization, and social status: Age-related and gender differences. *Social Development*, 24(3), 659-677. doi:10.1111/sode.12115.
- Shaw, T., Dooley, J. J., Cross, D., Zubrick, S. R., & Waters, S. (2013). The forms of bullying scale (FBS): Validity and reliability estimates for a measure of bullying victimization and perpetration in adolescence. *Psychological Assessment*, 25(4), 1045-1057. doi:10.1037/a0032955.
- Shetgiri, R., Lin, H., & Flores, G. (2013;2012;). Trends in risk and protective factors for child bullying perpetration in the united states. *Child Psychiatry & Human Development*, 44(1), 89-104. doi:10.1007/s10578-012-0312-3.
- Shetgiri, R., Lin, H., & Flores, G. (2015;2014;). Suboptimal maternal and paternal mental health are associated with child bullying perpetration. *Child Psychiatry & Human Development*, 46(3), 455-465. doi:10.1007/s10578-014-0485-z.
- Shin, J. Y., D'Antonio, E., Son, H., Kim, S., & Park, Y. (2011). Bullying and discrimination experiences among Korean-american adolescents. *Journal of Adolescence*, 34(5), 873-883. doi:10.1016/j.adolescence.2011.01.004.
- Shin, Y. (2010). Psychosocial and friendship characteristics of Bully/Victim subgroups in Korean primary school children. *School Psychology International*, 31(4), 372-388. doi:10.1177/0143034310377296.
- Shukla, P. (2012). The criminal child and its potential for change: A presumption in favour of rehabilitation in sentencing juvenile offenders. *New England Journal on Criminal & Civil Confinement*, 38(2), 379.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The “big three” of morality (autonomy, community, and divinity), and the “big three”

- explanations of suffering. In A. Brandt & P. Rozin (Eds.), *Morality and health* (pp. 119-169). New York: Routledge.
- Side, J., & Johnson, K. (2014). Bullying in schools: Why it happens, how it makes young people feel and what we can do about it. *Educational Psychology in Practice*, 30(3), 217-231. doi:10.1080/02667363.2014.915209.
- Sigfusdottir, I. D., Gudjonsson, G. H., & Sigurdsson, J. F. (2010). Bullying and delinquency. The mediating role of anger. *Personality and Individual Differences*, 48(4), 391-396. doi:10.1016/j.paid.2009.10.034.
- Sims-Schouten, W. (2015). Bullying in early childhood and the construction of young children as premoral agents: Implications for practice. *Pastoral Care in Education*, 33(4), 234-245. doi:10.1080/02643944.2015.1094121.
- Sims-Schouten, W., & Edwards, S. (2016). 'man up!' bullying and resilience within a neoliberal framework. *Journal of Youth Studies*, 19(10), 1382. doi:10.1080/13676261.2016.1171831.
- Singer, T., & Lamm, C. (2009). The social neuroscience of empathy. *Annals of the New York Academy of Sciences*, 1156(1), 81-96. doi:10.1111/j.1749-6632.2009.04418.x.
- Skinner, J. A., & Kowalski, R. M. (2013). Profiles of sibling bullying. *Journal of Interpersonal Violence*, 28(8), 1726-1736. doi:10.1177/0886260512468327.
- Slonje, R., & Smith, P. K. (2008). Cyberbullying: Another main type of bullying? *Scandinavian Journal of Psychology*, 49(2), 147-154. doi:10.1111/j.1467-9450.2007.00611.x.
- Slonje, R., Smith, P. K., Frisen, A., Department of Psychology, Psykologiska institutionen, Samhällsvetenskapliga fakulteten, . . . Göteborgs universitet.

- (2013). The nature of cyberbullying, and strategies for prevention. *Computers in Human Behavior*, 29(1), 26-32. doi:10.1016/j.chb.2012.05.024.
- Smith, A. (2006). Cognitive empathy and emotional empathy in human behavior and evolution. *The Psychological Record*, 56(1), 3.
- Smith, L. J., Gradisar, M., & King, D. L. (2015). Parental influences on adolescent video game play: A study of accessibility, rules, limit setting, monitoring, and cybersafety. *Cyberpsychology, Behavior, and Social Networking*, 18(5), 273-279. doi:10.1089/cyber.2014.0611.
- Smith, P. K. (2015). The nature of cyberbullying and what we can do about it. *Journal of Research in Special Educational Needs*, 15(3), 176-184. doi:10.1111/1471-3802.12114.
- Smith, P. K., Kupferberg, A., Mora-Merchan, J. A., Samara, M., Bosley, S., & Osborn, R. (2012). A content analysis of school anti-bullying policies: A follow-up after six years. *Educational Psychology in Practice*, 28(1), 47-70. doi:10.1080/02667363.2011.639344.
- Smith, P. K., Smith, C., Osborn, R., & Samara, M. (2008). A content analysis of school anti-bullying policies: Progress and limitations. *Educational Psychology in Practice*, 24(1), 1-12. doi:10.1080/02667360701661165.
- Smith, P. K., Talamelli, L., Cowie, H., Naylor, P., & Chauhan, P. (2004). Profiles of non-victims, escaped victims, continuing victims and new victims of school bullying. *The British Journal of Educational Psychology*, 74(Pt 4), 565-581. doi:10.1348/0007099042376427.
- Smits, D. J. M., & Kuppens, P. (2005). The relations between anger, coping with anger, and aggression, and the BIS/BAS system. *Personality and Individual Differences*, 39(4), 783-793. doi:10.1016/j.paid.2005.02.023.

- Sontag, L. M., Clemans, K. H., Graber, J. A., & Lyndon, S. T. (2011). Traditional and cyber aggressors and victims: A comparison of psychosocial characteristics. *Journal of Youth and Adolescence*, 40(4), 392-404. doi:10.1007/s10964-010-9575-9.
- Sourander, A., Helstelä, L., Helenius, H., & Piha, J. (2000). Persistence of bullying from childhood to adolescence—a longitudinal 8-year follow-up study. *Child Abuse & Neglect*, 24(7), 873-881. doi:10.1016/S0145-2134(00)00146-0.
- Spears, B. A., Taddeo, C. M., Daly, A. L., Stretton, A., & Karklins, L. T. (2015). Cyberbullying, help-seeking and mental health in young Australians: Implications for public health. *International Journal of Public Health*, 60(2), 219-226. doi:10.1007/s00038-014-0642-y.
- Spies Shapiro, L. A., & Margolin, G. (2014). Growing up wired: Social networking sites and adolescent psychosocial development. *Clinical Child and Family Psychology Review*, 17(1), 1-18. doi:10.1007/s10567-013-0135-1.
- Statistica. (2003). *Nonparametric tests*. Retrieved from [https://egret.psychol.cam.ac.uk/statistics/local\\_copies\\_of\\_sources\\_Cardinal\\_and\\_Aitken\\_ANOVA/stnonpar.html](https://egret.psychol.cam.ac.uk/statistics/local_copies_of_sources_Cardinal_and_Aitken_ANOVA/stnonpar.html).
- Stavrinides, P., Georgiou, S., & Theofanous, V. (2010). Bullying and empathy: A short-term longitudinal investigation. *Educational Psychology*, 30(7), 793-802. doi:10.1080/01443410.2010.506004.
- Stephenson, P., & Smith, D. (1989). Bullying in two English comprehensive schools. In E. Roland & E. Munthe (Eds.), *Bullying: An International Perspective*. London: Fulton.
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Mahwah, NJ: Routledge Academic.

- Stevens, V., De Bourdeaudhuij, I., & Van Oost, P. (2000). Bullying in Flemish schools: An evaluation of anti-bullying intervention in primary and secondary schools. *The British Journal of Educational Psychology*, 70 ( Pt 2)(2), 195-210. doi:10.1348/000709900158056.
- Sticca, F., & Perren, S. (2013). Is cyberbullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for the perceived severity of bullying. *Journal of Youth and Adolescence*, 42(5), 739-750. doi:10.1007/s10964-012-9867-3.
- Sticca, F., Ruggieri, S., Alsaker, F., & Perren, S. (2013). Longitudinal risk factors for cyberbullying in adolescence. *Journal of Community & Applied Social Psychology*, 23(1), 52-67. doi:10.1002/casp.2136.
- Strohmeier, D., & Noam, G. G. (2012). Bullying in schools: What is the problem, and how can educators solve it? *New Directions for Youth Development*, 2012(133), 7-13. doi:10.1002/yd.20003.
- Supple, A. J., Su, J., Plunkett, S. W., Peterson, G. W., & Bush, K. R. (2013). Factor structure of the Rosenberg self-esteem scale. *Journal of Cross-Cultural Psychology*, 44(5), 748-764. 10.1177/0022022112468942.
- Swearer, S. M., & Cary, P. T. (2003). Perceptions and attitudes toward bullying in middle school youth: A developmental examination across the bully/victim continuum. . *Journal of Applied School Psychology*, 19, 63–79.
- Swearer, S. M., Turner, R. K., Givens, J. E., & Pollack, W. S. (2008). “You’re so gay!”: Do different forms<sup>[L]</sup>of bullying matter for adolescent males? *School Psychology Review*, 37, 160–173.
- Synnott, J., Coulias, A. and Ioannou, M. (2017) ‘Online trolling the case of Madeleine McCann’ Computers in Human Behavior , 71, pp. 70-78. ISSN 0747-5632.

- Talwar, V., Gomez-Garibello, C., & Shariff, S. (2014). Adolescents' moral evaluations and ratings of cyberbullying: The effect of veracity and intentionality behind the event. *Computers in Human Behavior*, 36, 122-128. doi:10.1016/j.chb.2014.03.046.
- Tang, W. Y., & Fox, J. (2016). Men's harassment behavior in online video games: Personality traits and game factors. *Aggressive Behavior*, 42(6), 513-521. doi:10.1002/ab.21646.
- Tani, F., Greenman, P. S., Schneider, B. H., & Fregoso, M. (2003). Bullying and the big five: A study of childhood personality and participant roles in bullying incidents. *School Psychology International*, 24(2), 131-146. doi:10.1177/0143034303024002001.
- Tanrikulu, I., & Campbell, M. (2015). Correlates of traditional bullying and cyberbullying perpetration among Australian students. *Children and Youth Services Review*, 55, 138-146. doi:10.1016/j.childyouth.2015.06.001.
- Tanrikulu, I., & Campbell, M. A. (2015). Sibling bullying perpetration: Associations with gender, grade, peer perpetration, trait anger, and moral disengagement. *Journal of Interpersonal Violence*, 30(6), 1010-1024. doi:10.1177/0886260514539763.
- Tarabulus, T., Heiman, T., & Olenik-Shemesh, D. (2015). Cyber bullying among teenagers in Israel: An examination of cyber bullying, traditional bullying, and socioemotional functioning. *Journal of Aggression, Maltreatment & Trauma*, 24(6), 707. doi:10.1080/10926771.2015.1049763.
- Tarapdar, S., & Kellett, M. (2013). Cyberbullying: Insights and age-comparison indicators from a youth-led study in England. *Child Indicators Research*, 6(3), 461-477. doi:10.1007/s12187-012-9177-z.

- Teasley, M. L. (2014). Shifting from zero tolerance to restorative justice in schools. *Children & Schools*, 36(3), 131-133. doi:10.1093/cs/cdu016.
- Tenenbaum, L. S., Varjas, K., Meyers, J., & Parris, L. (2011). Coping strategies and perceived effectiveness in fourth through eighth grade victims of bullying. *School Psychology International*, 32(3), 263-287. doi:10.1177/0143034311402309.
- Tettegah, S. Y., Betout, D., & Renee Taylor, K. (2006). Cyber-bullying and schools in an electronic era. (pp. 17-28) Emerald Group Publishing Limited. doi:10.1016/S1479-3660(05)08002-9.
- Theriot, M. T., Dulmus, C. N., Sowers, K. M., & Johnson, T. K. (2005). Factors relating to self-identification among bullying victims. *Children and Youth Services Review*, 27(9), 979-994. doi:10.1016/j.childyouth.2004.12.024.
- Thomas, H. J., Chan, G. C. K., Scott, J. G., Connor, J. P., Kelly, A. B., & Williams, J. (2016;2015;). Association of different forms of bullying victimisation with adolescents' psychological distress and reduced emotional wellbeing. *The Australian and New Zealand Journal of Psychiatry*, 50(4), 371. doi:10.1177/0004867415600076.
- Thompson, L., & Cupples, J. (2008). Seen and not heard? text messaging and digital sociality. *Social & Cultural Geography*, 9(1), 95-108. doi:10.1080/14649360701789634.
- Thompson, P. (2013). 'it really hurts and it is bullying': Moral learning as political practice. *Journal of Moral Education*, 42(2), 224.
- Thornberg, R., Jungert, T., Linköpings universitet, Pedagogik och didaktik, Institutionen för beteendevetenskap och lärande, Psykologi, . . . Filosofiska

- fakulteten. (2014). School bullying and the mechanisms of moral disengagement. *Aggressive Behavior*, 40(2), 99-108. doi:10.1002/ab.21509.
- Thornberg, R., Rosenqvist, R., Johansson, P., Pedagogik och didaktik, Linköpings universitet, Institutionen för beteendevetenskap och lärande, & Utbildningsvetenskap. (2012). Older teenagers' explanations of bullying. *Child & Youth Care Forum*, 41(4), 327-342. doi:10.1007/s10566-012-9171-0.
- Thornton, L. C., Frick, P. J., Crapanzano, A. M., & Terranova, A. M. (2013). The incremental utility of callous-unemotional traits and conduct problems in predicting aggression and bullying in a community sample of boys and girls. *Psychological Assessment*, 25(2), 366-378. doi:10.1037/a0031153.
- Tippett, N., & Wolke, D. (2015). Aggression between siblings: Associations with the home environment and peer bullying: Aggression between siblings. *Aggressive Behavior*, 41(1), 14-24. doi:10.1002/ab.21557.
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior*, 26(3), 277-287. doi:10.1016/j.chb.2009.11.014.
- Topcu, C., & Erdur-Baker, O. (2010). The revised cyber bullying inventory (RCBI): Validity and reliability studies. *Procedia - Social and Behavioral Sciences*, 5, 660-664. doi:10.1016/j.sbspro.2010.07.161.
- Topcu, C., & Erdur-Baker, O. (2012). Affective and cognitive empathy as mediators of gender differences in cyber and traditional bullying. *School Psychology International*, 33(5), 550-561. doi:10.1177/0143034312446882.
- Topcu, Ç., Yıldırım, A., & Erdur-Baker, O. (2013). Cyber bullying @ schools: What do Turkish adolescents think? *International Journal for the Advancement of Counselling*, 35(2), 139-151. doi:10.1007/s10447-012-9173-5.

- Tremblay, R. E. (2015). Developmental origins of chronic physical aggression: An international perspective on using singletons, twins and epigenetics. *European Journal of Criminology*, 12(5), 551.
- Tsaousis, I. (2016). The relationship of self-esteem to bullying perpetration and peer victimization among schoolchildren and adolescents: A meta-analytic review. *Aggression and Violent Behavior*, doi:10.1016/j.avb.2016.09.005.
- Ttofi, M. M., & Farrington, D. P. (2008). Reintegrative shaming theory, moral emotions and bullying. *Aggressive Behavior*, 34(4), 352-368. doi:10.1002/ab.20257.
- Ttofi, M. M., & Farrington, D. P. (2012). Bullying prevention programs: The importance of peer intervention, disciplinary methods and age variations. *Journal of Experimental Criminology*, 8(4), 443-462. doi:10.1007/s11292-012-9161-0.
- Tucker, C. J., Finkelhor, D., Turner, H., & Shattuck, A. M. (2014). Sibling and peer victimization in childhood and adolescence. *Child Abuse & Neglect*, 38(10), 1599-1606. doi:10.1016/j.chab.2014.05.007.
- Turan, N., Polat, O., Karapirli, M., Uysal, C., & Turan, S. G. (2011). The new violence type of the era: Cyber bullying among university students: Violence among university students. *Neurology Psychiatry and Brain Research*, 17(1), 21-26. doi:10.1016/j.npbr.2011.02.005.
- Turcotte Benedict, F., Vivier, P. M., & Gjelsvik, A. (2015). Mental health and bullying in the united states among children aged 6 to 17 years. *Journal of Interpersonal Violence*, 30(5), 782-795. doi:10.1177/0886260514536279.

- Turner, K. A., & White, B. A. (2015). Contingent on contingencies: Connections between anger rumination, self-esteem, and aggression. *Personality and Individual Differences*, 82, 199-202. doi:10.1016/j.paid.2015.03.023.
- Tzani-Pepelasi C., Ioannou M., Synnott J. & McDonnell D. (2019). Peer Support at Schools: The Buddy Approach as a Prevention and Intervention strategy for School Bullying. *International Journal of Bullying Prevention*. DOI: 10.1007/s42380-019-00011-z.
- Tzani-Pepelasi C., Ioannou M., Synnott J. and Ashton, S. A. (2018). Comparing Factors Related to School-bullying and Cyber-bullying. *Journal of Crime Psychology Review*. DOI: 10.1080/23744006.2018.1474029.
- Tzani-Pepelasi, C., Ioannou, M., Synnott, J. and Fumagalli, A. (2017) 'Cyber-Bullying And Children's Unmonitored Media Violence Exposure' *Assessment and Development Matters*, 9 (4), pp. 2-6. ISSN 2040-4069.
- Unnever, J. D., & Cornell, D. G. (2003). Bullying, self-control, and adhd. *Journal of Interpersonal Violence*, 18(2), 129-147. doi:10.1177/0886260502238731.
- Vaillancourt, T., McDougall, P., Hymel, S., Krygsman, A., Miller, J., Stiver, K., & Davis, C. (2008). Bullying: Are researchers and children/youth talking about the same thing? *International Journal of Behavioral Development*, 32(6), 486-495. doi:10.1177/0165025408095553.
- Valcke, M., Bonte, S., De Wever, B., & Rots, I. (2010). Internet parenting styles and the impact on Internet use of primary school children. *Computers & Education*, 55(2), 454-464. doi:10.1016/j.compedu.2010.02.009.
- Van der Wal, Marcel F. (2005). There is bullying and bullying. *European Journal of Pediatrics*, 164(2), 117-118. doi:10.1007/s00431-004-1573-z.

- van der Watt, R. (2014). Attachment, parenting styles and bullying during pubertal years. *Journal of Child & Adolescent Mental Health*, 26(3), 251. doi:10.2989/17280583.2014.947966.
- Van Noorden, Tirza H. J., Bukowski, W. M., Haselager, G. J. T., Lansu, T. A. M., & Cillessen, A. H. N. (2016). Disentangling the frequency and severity of bullying and victimization in the association with empathy: Frequency and severity. *Social Development*, 25(1), 176-192. doi:10.1111/sode.12133.
- Varjas, K., Meyers, J., Kiperman, S., & Howard, A. (2013). Technology hurts? Lesbian, gay, and bisexual youth perspectives of technology and cyberbullying. *Journal of School Violence*, 12(1), 27-44. doi:10.1080/15388220.2012.731665.
- Vassallo, S., Edwards, B., Renda, J., & Olsson, C. A. (2014). Bullying in early adolescence and antisocial behaviour and depression six years later: What are the protective factors? *Journal of School Violence*, 13(1), 100-124. doi:10.1080/15388220.2013.840643.
- Vazsonyi, A. T., Machackova, H., Sevcikova, A., Smahel, D., & Cerna, A. (2012). Cyberbullying in context: Direct and indirect effects by low self-control across 25 European countries. *European Journal of Developmental Psychology*, 9(2), 210. doi:10.1080/17405629.2011.644919.
- Vervoort, M. H. M., Scholte, R. H. J., & Overbeek, G. J. (2010). Bullying and victimization among adolescents: The role of ethnicity and ethnic composition of school class. *Journal of Youth and Adolescence*, 39(1), 1-11. doi:10.1007/s10964-008-9355-y.

- Vickers, M. H. (2009). Bullying, disability and work: A case study of workplace bullying. *Qualitative Research in Organizations and Management: An International Journal*, 4(3), 255-272. doi:10.1108/17465640911002536.
- Vieno, A., Gini, G., & Santinello, M. (2011). Different forms of bullying and their association to smoking and drinking behaviour in Italian adolescents. *Journal of School Health*, 81(7), 393-399. doi:10.1111/j.1746-1561.2011.00607.x.
- Von Marées, N., & Petermann, F. (2010). Bullying in German primary schools: Gender differences, age trends and influence of parents' migration and educational backgrounds. *School Psychology International*, 31(2), 178-198. doi:10.1177/0143034309352416.
- Wachs, S., Junger, M., & Sittichai, R. (2015). Traditional, cyber and combined bullying roles: Differences in risky online and offline activities. *Societies*, 5(1), 109-135. doi:10.3390/soc5010109.
- Walsh, S. D., De Clercq, B., Molcho, M., Harel-Fisch, Y., Davison, C. M., Rich Madsen, K., & Stevens, Gonke W. J. M. (2016;2015;). The relationship between immigrant school composition, classmate support and involvement in physical fighting and bullying among adolescent immigrants and non-immigrants in 11 countries. *Journal of Youth and Adolescence*, 45(1), 1-16. doi:10.1007/s10964-015-0367-0.
- Wang, J., Iannotti, R. J., & Luk, J. W. (2012). Patterns of adolescent bullying behaviors: Physical, verbal, exclusion, rumour, and cyber. *Journal of School Psychology*, 50(4), 521-534. doi:10.1016/j.jsp.2012.03.004.
- Wang, J., Iannotti, R. J., & Nansel, T. R. (2009). School bullying among adolescents in the United States: Physical, verbal, relational, and cyber. *Journal of Adolescent Health*, 45(4), 368-375. doi:10.1016/j.jadohealth.2009.03.021.

- Wang, J., Iannotti, R. J., Luk, J. W., & Nansel, T. R. (2010). Co-occurrence of victimization from five subtypes of bullying: Physical, verbal, social exclusion, spreading rumours, and cyber. *Journal of Pediatric Psychology*, 35(10), 1103-1112. doi:10.1093/jpepsy/jsq048.
- Wang, J., Nansel, T. R., & Iannotti, R. J. (2011). Cyber and traditional bullying: Differential association with depression. *Journal of Adolescent Health*, 48(4), 415-417. doi:10.1016/j.jadohealth.2010.07.012.
- Wang, X., Lei, L., Liu, D., & Hu, H. (2016). Moderating effects of moral reasoning and gender on the relation between moral disengagement and cyberbullying in adolescents. *Personality and Individual Differences*, 98, 244-249. doi:10.1016/j.paid.2016.04.056.
- Warden, D., & Mackinnon, S. (2003). Prosocial children, bullies and victims: An investigation of their sociometric status, empathy and social problem-solving strategies. *The British Journal of Developmental Psychology*, 21, 367.
- Weber, M., Ziegele, M., & Schnauber, A. (2013). Blaming the victim: The effects of extraversion and information disclosure on guilt attributions in cyberbullying. *Cyberpsychology, Behavior, and Social Networking*, 16(4), 254-259. doi:10.1089/cyber.2012.0328.
- Weddle, D. B., & New, K. E. (2011). What did Jesus do? answering religious conservatives who oppose bullying prevention legislation. *New England Journal on Criminal & Civil Confinement*, 37(2), 325.
- Weiss, J. W., Mouttapa, M., Chou, C., Nezami, E., Anderson Johnson, C., Palmer, P. H.. . Unger, J. B. (2005). Hostility, depressive symptoms, and smoking in early adolescence. *Journal of Adolescence*, 28(1), 49-62. doi:10.1016/j.adolescence.2004.03.009.

- Welch, T. (2008). Bullies and their victims. *Journal of Pediatric*, 152(1), A1-A1.  
doi:10.1016/j.jpeds.2007.11.015.
- Welsh, B. C., & Farrington, D. P. (2013). Preventing crime is hard work: Early intervention, developmental criminology, and the enduring legacy of James Q. Wilson. *Journal of Criminal Justice*, 41(6), 448-451.  
doi:10.1016/j.jcrimjus.2013.08.003.
- Westfall, P.H., & Henning, K.S.S. (2013). *Texts in statistical science: Understanding advanced statistical methods*. Boca Raton, FL: Taylor & Francis.
- Whittaker, E., & Kowalski, R. M. (2015). Cyberbullying via social media. *Journal of School Violence*, 14(1), 11-29. doi:10.1080/15388220.2014.949377.
- Wienke Totura, C. M., MacKinnon-Lewis, C., Gesten, E. L., Gadd, R., Divine, K. P., Dunham, S., & Kamboukos, D. (2009;2008;). Bullying and victimization among boys and girls in middle school: The influence of perceived family and school contexts. *The Journal of Early Adolescence*, 29(4), 571-609.  
doi:10.1177/0272431608324190.
- Wilkowski, B. M., & Robinson, M. D. (2008;2007;). The cognitive basis of trait anger and reactive aggression: An integrative analysis. *Personality and Social Psychology Review*, 12(1), 3-21. doi:10.1177/1088868307309874.
- Willard, N. (2004). I can't see you, You can't see me. *How the use of information and communication technologies can impact responsible behaviour*. Retrieved 5, July, 2013, from <http://www.cyberbully.org/docs/disinhibition.pdf>.
- Willard, N. (2006). Flame retardant: Cyberbullies torment their victims 24/7: Here's how to stop the abuse. *School Library Journal*, 52, 54–56. Retrieved from <http://search.proquest.com.libaccess.hud.ac.uk/docview/211826663?accountid=11526>.

- Williams, K. R., & Guerra, N. G. (2007). Prevalence and predictors of Internet bullying. *Journal of Adolescent Health, 41*(6), S14-S21.  
doi:10.1016/j.jadohealth.2007.08.018.
- Williams, K., Chambers, M., Logan, S., & Robinson, D. (1996). Association of common health symptoms with bullying in primary school children. *British Medical Journal, 313*(7048), 17-19. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2351438/>.
- Williams, L. M., & Peguero, A. A. (2013). The impact of school bullying on Racial/Ethnic achievement. *Race and Social Problems, 5*(4), 296.  
doi:10.1007/s12552-013-9105-y.
- Williford, A., & Depaolis, K. J. (2016). Predictors of cyberbullying intervention among elementary school staff: The moderating effect of staff status. *Psychology in the Schools, 53*(10), 1032-1044. doi:10.1002/pits.21973.
- Williford, A., Boulton, A., Noland, B., Little, T. D., Kärnä, A., & Salmivalli, C. (2012). Effects of the KiVa anti-bullying program on adolescents' depression, anxiety, and perception of peers. *Journal of Abnormal Child Psychology, 40*(2), 289-300. doi:10.1007/s10802-011-9551-1.
- Wilson, M. L., Celedonia, K. L., & Kamala, B. A. (2013). Patterns, characteristics, and correlates of adolescent bully-victims in urban Tanzania. *Social Sciences, 2*(4), 234-246. doi:10.3390/socsci2040234.
- Wolf, S. T., Cohen, T. R., Panter, A. T., & Insko, C. A. (2010). Shame proneness and guilt proneness: Toward the further understanding of reactions to public and private transgressions. *Self & Identity, 9*, 337-362. doi:10.1080/15298860903106843.

- Wolke, D., Woods, S., Stanford, K., & Schulz, H. (2001). Bullying and victimization of primary school children in England and Germany: Prevalence and school factors. *British Journal of Psychology (London, England : 1953)*, 92(Pt 4), 673-696. doi:10.1348/000712601162419.
- Wong, D. S. W., Cheng, C. H. K., Ngan, R. M. H., & Ma, S. K. (2011). Program effectiveness of a restorative whole-school approach for tackling school bullying in Hong Kong. *International Journal of Offender Therapy and Comparative Criminology*, 55(6), 846-862. doi:10.1177/0306624X10374638.
- Woods, S., Done, J., & Kalsi, H. (2009). Peer victimisation and internalising difficulties: The moderating role of friendship quality. *Journal of Adolescence*, 32(2), 293-308. doi:10.1016/j.adolescence.2008.03.005.
- Workman, M. (2012). Rash impulsivity, vengefulness, virtual-self and amplification of ethical relativism on cyber-smearing against corporations. *Computers in Human Behavior*, 28(1), 217. doi:10.1016/j.chb.2011.09.003.
- Wright, M. F. (2016). Cyber victimization and psychological adjustment difficulties among adolescents: The role of technology mediation and social support from school resource officers. *Policing: An International Journal of Police Strategies & Management*, 39(3), 536-550. doi:10.1108/PIJPSM-02-2016-0016.
- Wright, M. F., Aoyama, I., Kamble, S. V., Li, Z., Soudi, S., Lei, L., & Shu, C. (2015). Peer attachment and cyber aggression involvement among Chinese, Indian, and Japanese adolescents. *Societies*, 5(2), 339-353. doi:10.3390/soc5020339.
- Wyatt J. C. (2000). When to use web-based surveys. *Journal of the American Medical Informatics Association : JAMIA*, 7(4), 426-9.

- Xiao, B. S., & Wong, Y. M. (2013). Cyber-bullying among university students: An empirical investigation from the social cognitive perspective. *International Journal of Business and Information*, 8(1), 34.
- Yahner, J., Dank, M., Zweig, J. M., & Lachman, P. (2015). The co-occurrence of physical and cyber dating violence and bullying among teens. *Journal of Interpersonal Violence*, 30(7), 1079-1089. doi:10.1177/0886260514540324.
- Yaneva, M., Ioannou, M., Hammond, L., & Synnott, J. (2018). Differentiating Contract Killers: A Narrative-Based Approach. *The Howard Journal of Crime and Justice*. DOI: 10.1111/hojo.12243.
- Yang, A., & Salmivalli, C. (2013). Different forms of bullying and victimization: Bully-victims versus bullies and victims. *European Journal of Developmental Psychology*, 10(6), 723-738. doi:10.1080/17405629.2013.793596.
- Yang, S., Stewart, R., Kim, J., Kim, S., Shin, I., Dewey, M. E.. . Yoon, J. (2013). Differences in predictors of traditional and cyber-bullying: A 2-year longitudinal study in Korean school children. *European Child & Adolescent Psychiatry*, 22(5), 309-318. doi:10.1007/s00787-012-0374-6.
- Ye, L., Ferdinando, H., Seppänen, T., & Alasaarela, E. (2014). Physical violence detection for preventing school bullying. *Advances in Artificial Intelligence*, 2014, 1-9. doi:10.1155/2014/740358.
- Yen, C., Liu, T., Ko, C., Wu, Y., & Cheng, C. (2014). Mediating effects of bullying involvement on the relationship of body mass index with social phobia, depression, suicidality, and self-esteem and sex differences in adolescents in Taiwan. *Child Abuse & Neglect*, 38(3), 517-526. doi:10.1016/j.chab.2013.07.015.

- Yen, C., Yang, P., Wang, P., Lin, H., Liu, T., Wu, Y., & Tang, T. (2014). Association between school bullying levels/types and mental health problems among Taiwanese adolescents. *Comprehensive Psychiatry*, 55(3), 405-413. doi:10.1016/j.comppsych.2013.06.001.
- Yerger, W., & Gehret, C. (2011). Understanding and dealing with bullying in schools. *The Educational Forum*, 75(4), 315-326. doi:10.1080/00131725.2011.602468.
- Yilmaz, H. (2011). Cyberbullying in Turkish middle schools: An exploratory study. *School Psychology International*, 32(6), 645-654. doi:10.1177/0143034311410262.
- You, S., & Lim, S. A. (2016). Longitudinal predictors of cyberbullying perpetration: Evidence from Korean middle school students. *Personality and Individual Differences*, 89, 172-176. doi:10.1016/j.paid.2015.10.019.
- Yu, T., & Chao, C. (2016). Internet misconduct impact adolescent mental health in Taiwan: The moderating roles of Internet addiction. *International Journal of Mental Health and Addiction*, 14(6), 921-936. doi:10.1007/s11469-016-9641-y.
- Zalaquett, C. P., & Chatters, S. J. (2014). Cyberbullying in college: Frequency, characteristics, and practical implications. *SAGE Open*, 4(1) doi:10.1177/2158244014526721.
- Ziv, Y., Leibovich, I., & Shechtman, Z. (2013). Bullying and victimization in early adolescence: Relations to social information processing patterns. *Aggressive Behavior*, 39(6), 482-492. doi:10.1002/ab.21494.
- Zou, C., Andersen, J. P., & Blosnich, J. R. (2013). The association between bullying and physical health among gay, lesbian, and bisexual individuals. *Journal of the American Psychiatric Nurses Association*, 19(6), 356-365.

Zweig, J. M., Dank, M., Yahner, J., & Lachman, P. (2013). The rate of cyber dating abuse among teens and how it relates to other forms of teen dating violence. *Journal of Youth and Adolescence*, 42(7), 1063-1077. doi:10.1007/s10964-013-9922-8.

## Appendix A

Table 1.10.1. *List of the most recent studies relevant to bullying.*

Researchers	Purpose	Method	Results
Brown, E. C., Low, S., Smith, B. H., & Haggerty, K. P. (2011).	This study compared the results of implementing an anti-bullying program in elementary schools.	The researchers used a social-ecological approach to bullying prevention.	The best results come from broad inclusion of individual students and teachers, their peers, and the school as a whole.
Gregory, K. E., & Vessey, J. A. (2004)	This project studied the effect of bibliotherapy as a strategy to help children with bullying.	The authors discuss the unique way books send a message, the circumstances the books present, and how children's reactions to them can be a guide in education on a sensitive topic.	Besides offering a verbal and visual representation of common circumstances, children often find books to be a comfort.
Nickel, M. K., Krawczyk, J., Nickel, C.,	This article focused on boys who bully and the effect of	Forty-four boys were involved in this study over a 6-	The results at 1-year follow-up were strongly

Forthuber, P.,	family therapy on	month period (22	positive and stable,
Kettler, C.,	their behaviours,	receiving the	with only 6 of the
Leiberich, P. . .	interpersonal	intervention and 22	22 children
Loew, T. H.	relationships,	receiving a placebo	continuing the
(2005).	quality of life, and	intervention).	behaviours in the
	anger reduction.		intervention group
			and 20 of 22
			continuing in the
			placebo group.
Nickel, M., Luley,	This article by the	Forty girls were	The results were
J., Krawczyk, J.,	same authors	involved in the	very positive and
Nickel, C.,	focused on girls	study, with 20 in	stable at the 1-year
Widermann, C.,	who bully and the	the intervention	follow-up, with
Lahmann, C., . . .	effect of family	group and 20 in the	only 6 of the 20
Loew, T. (2006).	therapy on their	control group.	girls in the
	bullying behaviour,		intervention group
	anger reduction,		continuing the
	improvement of		bullying behaviour
	interpersonal		and 18 of the 20 in
	relation- ships, and		the placebo group
	health-related		continuing.
	quality of life.		
Raskauskas, J., &	This article	This article dis-	Modifications and
Modell, S. (2011)	discusses the	cusses how to	evaluation
	proper	advocate for these	techniques are

	implementation of an anti-bullying program within the schools.	children and how to include them in all aspects of the program.	offered as well as some anti-bullying program resources.
Salmivalli, C., Kaukiainen, A., & Voeten, M. (2005).	This article focused on the effect of an anti-bullying program implemented in class- rooms across 16 schools.	The implementers of this program were the teachers, who were involved in a 1-year training program before the study began.	The program had positive results. It was noted that only five schools had a high implementation score.
		During the year the program was implemented, the teachers recorded the concrete implementations they used to educate or correct.	
van Roekel, E., Scholte, R. H., & Didden, R. (2010).	The three issues looked at in this article were the prevalence of bullying in adolescents with	This study looked at 230 children in special needs schools who were diagnosed with autism spectrum	The results they found the most interesting were that the more bullying behaviours an

	ASD, whether they perceived it correctly, and whether the theory of mind was involved in the perception they reported.	disorder (ASD).	adolescent exhibited or was the victim of, the more they identified bullying behaviours as non-bullying.
Wilkins-Shurmer, A., O'Callaghan, M. J., Najman, J. M., Bor, W., Williams, G. M., & Anderson, M. J. (2003).	The purpose of the study was to show a relationship between being involved in peer victimization and lower health-related quality-of-life indicators.	The authors of this study provided a follow-up study from a cohort of 8,556 women who were pregnant between 1981 and 1984. When the children were 13 years old, 5,345 mothers agreed to participate in a questionnaire study.	The study showed that being bullied was associated with significantly lower quality of life in adolescents.
Wolke, D., Woods, S., Bloomfield, L., & Karstadt, L.	This study examined the association	A structured interview adapted from the Olweus	A significant finding was that children involved

(2000).	between direct and relational bullying and behaviour problems among primary school children.	Bullying Questionnaire was used to determine whether children had experienced any direct bullying behaviours within the last 6 months.	in direct bullying had parents who reported higher problems with hyperactivity, conduct disorder, and lower prosocial behaviour scores.
Huesmann, R. L. (2007).	This project involves the impact of electronic media violence: Scientific theory and research.	Huesmann (2007) references both short-term and long-term effects of violence in the media on children and adolescents.	Huesmann also states that the long-term effects of violence are based on two theories: "more lasting observational learning of cognitions and behaviours (i.e., imitation of behaviours), and activation and desensitization of emotional processes".
Agatston, P.,	This project	Questionnaires	Males who

Kowlaski, R., & Limber, S. (2007). researched the feelings and thoughts of students 12 to 17 years old on cyber bullying. participated in the study said that cyber bullying did not cause an issue within school confines. However, females said cyber bullying was an issue at school.

King, J. E., Walpole, C. E., & Lamon, K. (2007). In this article, information about gang influence from an on-line perspective is reported. To examine use of the Internet by gangs and its affect on youth, i-SAFE Inc. collected information from more than 100,000 students and 137 gang associates from an urban population. Detailed information about "happy slapping".

Kowalski, R. M., & Limber, S. P. (2007). This study evaluates electronic bullying in middle schools. This study included 1,915 girls and 1,852 boys in grades 6 through 8. Of all of the children who participated, it was found that 78% had

	Children were asked to fill out a questionnaire.	not had any experience with electronic bullying within the last 2 months.	
Slovak, K., & Singer, J. B. (2011).	This project examined school social workers' perceptions of cyber bullying.	School social workers were asked multiple questions about their school policies about cyber bullying.	Three hundred and ninety-nine social workers participated in the study, and only 32.9% reported that their district had a policy against cyber bullying.
Ybarra, M. L., Diener-West, M., & Leaf, P. J. (2007).	This project examined the overlap in Internet harassment and school bullying.	They used the Growing Up with Media survey, which is a national cross-sectional online survey of 1588 youth between the ages of 10 and 15 years old.	The authors found that 64% of children ages 10 to 15 years were only being cyber-bullied and not being bullied at school.
Twyman, K.	They compared	Students completed	The results of the

Saylor, C., Taylor, L. A., & Comeaux, C. (2010). children and adolescents who engaged in cyberbullying to matched peers. the Student Observation of School Bullying, Reynolds Bully Victimization Scale for Schools, and Beliefs Checklist for students. the Student Observation of School Bullying, Reynolds Bully Victimization Scale for Schools, and Beliefs Checklist for students. comparison showed that children who engage in bully-victim roles online are most likely to also engage in these roles in a traditional school setting.

Table 1.10.2. *Measures that have been used to study bullying and the related consequences:*

- ❖ The Olweus Bully/Victim Questionnaire
- ❖ The Franke and Hymel Social Anxiety Scale
- ❖ The Children' Depression Inventory
- ❖ The English Version of the Relational Aggression and Victimization Scale
- ❖ Olweus Bullying Survey, and items related to depression, self-esteem, social support, and school adjustment
- ❖ The Revised Olweus Bully/Victim Questionnaire
- ❖ Children's Depression Inventory–Short Form
- ❖ Child and Adolescent Social Support Survey
- ❖ The 60-item Child and Adolescent Social Support Survey (CASSS)
- ❖ The Hare Psychopathy Checklist: Youth Version (PCL:YV)
- ❖ The Structured Assessment of Violence Risk in Youth (SAVRY)

- ❖ The Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR)
- ❖ The Risk Sophistication Treatment Inventory (RSTI)
- ❖ DNA
- ❖ The Achenbach-CBCL (which measured depression and anxiety for adults)
- ❖ The Achenbach-YSR (which measured self- reported depression and anxiety for children)
- ❖ Children's Self-Experiences Questionnaire – Self-Report (CSEQ- SR)
- ❖ Direct and Indirect Aggression Scales – victim version (DIASs)
- ❖ Child Behaviour Checklist (CBCL) and Youth Self Report (YSR)
- ❖ The Centre for Epidemiologic Studies Depression Scale
- ❖ Chinese version of the School Bullying Experience Questionnaire (C-SBEQ)
- ❖ Mandarin Chinese version of the Centre for Epidemiological Studies- Depression Scale (MC-CES-D)
- ❖ Athens Insomnia Scale (AIS-8)
- ❖ The Multidimensional Anxiety Scale for Children (MASC-T)
- ❖ Social Phobia Inventory (SPIN)
- ❖ Attention-Deficit/Hyperactivity Disorder Self-rated Scale (ADHDS)
- ❖ The 5-item questionnaire from the epidemiological version of the Kiddie- Schedule for Affective Disorders and Schizophrenia (K-SADS-E)
- ❖ Alcohol abuse screening test (CRAFFT)
- ❖ The Cognitive Emotion Regulation Questionnaire (CERQ)
- ❖ The Symptom Check List (SCL-90)
- ❖ The Beck Inventory (BDI-IA)
- ❖ The Suicide Ideation Questionnaire (SIQ-JR)
- ❖ The School Bullying Experience Questionnaire

- ❖ The Rosenberg Self-Esteem Scale
- ❖ The Amsterdam Children's Bullying questionnaire

## Appendix B

Table 1.9.1.1. *Summary Statistics for Participants' Age.*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE<sub>M</sub></i>	Skewness	Kurtosis
AGE	22.54	7.94	408	0.39	2.81	8.56

*Note.* '-' denotes the sample size is too small to calculate statistic.

Table 1.9.1.2. *Frequencies for Nominal Background Variables.*

Variable	<i>n</i>	%
Gender		
Female	337	82.60
Male	71	17.40
Missing	0	0.00
Country Born		
ALB	2	0.49
Australia	1	0.25
Cameroon	1	0.25
Canada	1	0.25
Congo	1	0.25
Czech Republic	1	0.25
GB	1	0.25
Germany	3	0.74
GR	24	5.88
Hong Kong	1	0.25
Italy	6	1.47
Jordan	1	0.25
Kenya	1	0.25
Kosovo	1	0.25
Kurdistan	2	0.49
Latvia	1	0.25
Lithuania	1	0.25
Mexico	1	0.25
Nederland	1	0.25
Norway	1	0.25
Oman	1	0.25
Pakistan	5	1.23

Poland	4	0.98
Portugal	2	0.49
South Korea	1	0.25
Syria	3	0.74
UK	339	83.09
Zimbabwe	1	0.25
Missing	0	0.00
Country Live		
Europe	1	0.25
GB	1	0.25
Germany	1	0.25
GR	20	4.90
Hong Kong	1	0.25
Italy	1	0.25
Jordan	1	0.25
Mexico	1	0.25
Nederland	1	0.25
Netherlands	1	0.25
Oman	1	0.25
South Korea	1	0.25
UK	377	92.40
Missing	0	0.00
Ethnic Group		
Asian/Asian British	67	16.42
Black African Caribbean Black British	10	2.45
Latin	1	0.25
Middle eastern	5	1.23
Mixed multiple ethnic groups	14	3.43
No ethnic background all ethnic groups	1	0.25
White	310	75.98
Missing	0	0.00
Religion		
Christian all denominations	125	30.64
Muslim	65	15.93
No religion	211	51.72
Other Taoist, Sikh, Pagan, Jewish	7	1.72
Missing	0	0.00
Still at school		
No	45	11.03
Yes	363	88.97
Missing	0	0.00

School level		
College	5	1.23
Not at school	42	10.29
Secondary	10	2.45
University	351	86.03
Missing	0	0.00
Sexual orientation		
Bisexual	29	7.11
Heterosexual	365	89.46
Homosexual	8	1.96
Prefer not to say	6	1.47
Missing	0	0.00
Friendly relationship with parents		
Kind of	63	15.44
No	23	5.64
Yes	322	78.92
Missing	0	0.00

---

Table 1.9.1.3. *Frequencies for Mental and Physical Health.*

Variable	n	%
<b>Mental health</b>		
I don't want to say	13	3.19
No	284	69.61
Yes	111	27.21
Missing	0	0.00
<b>Physical health</b>		
I don't want to say	7	1.72
No	347	85.05
Yes	54	13.24
Missing	0	0.00

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 5.11.1. *Variance Inflation Factors for AGE, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	VIF
AGE	1.07
Gender	1.07
Ethnic Group	5.04
Religion	4.98
Sexual orientation	1.21
Disabilities	1.70
Mental health	1.28
Physical health	1.44

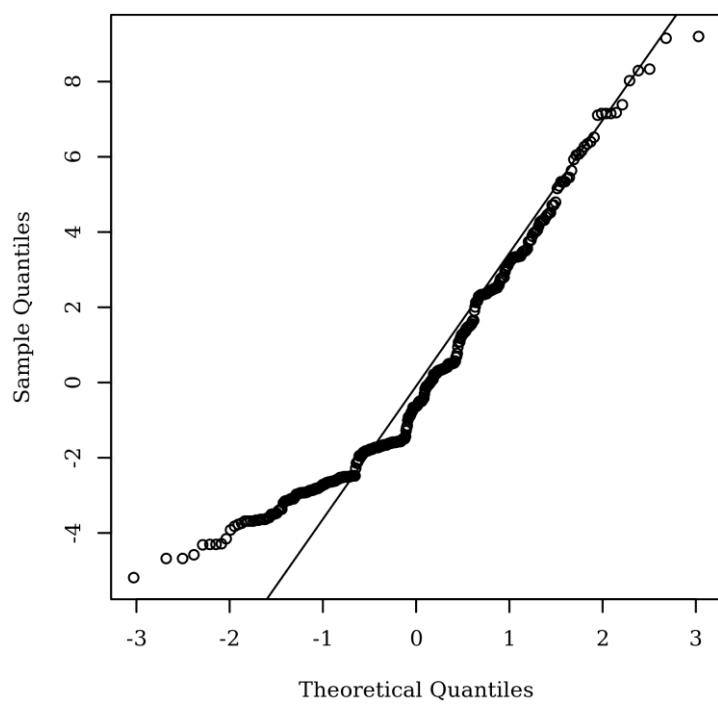


Figure 5.11.1. Q-Q scatterplot testing normality.

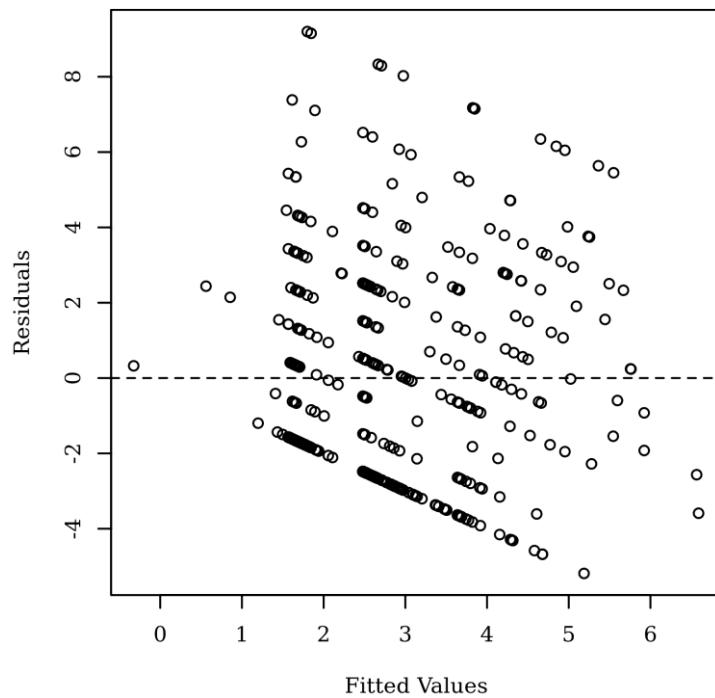


Figure 5.11.2. Residuals scatterplot testing homoscedasticity.

Table 5.11.3. *Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	VIF
AGE	1.07
Gender	1.08
Ethnic Group	4.89
Religion	4.82
Sexual orientation	1.26
Disabilities	1.58
Mental health	1.33
Physical health	1.40

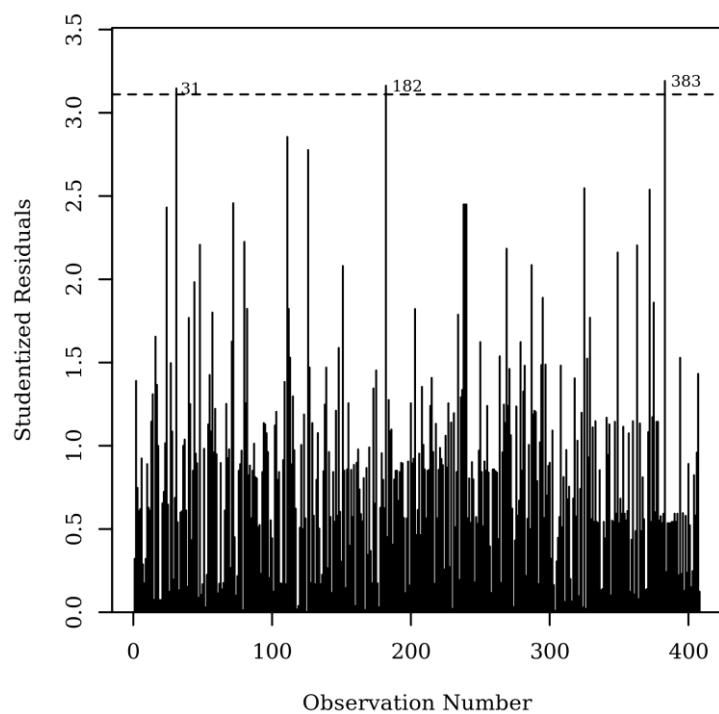


Figure 5.11.3. Studentised residuals plot for outlier detection.

Table 5.11.5. *Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	VIF
AGE	1.07
Gender	1.08
Ethnic Group	4.89
Religion	4.82
Sexual orientation	1.26
Disabilities	1.58
Mental health	1.33
Physical health	1.40

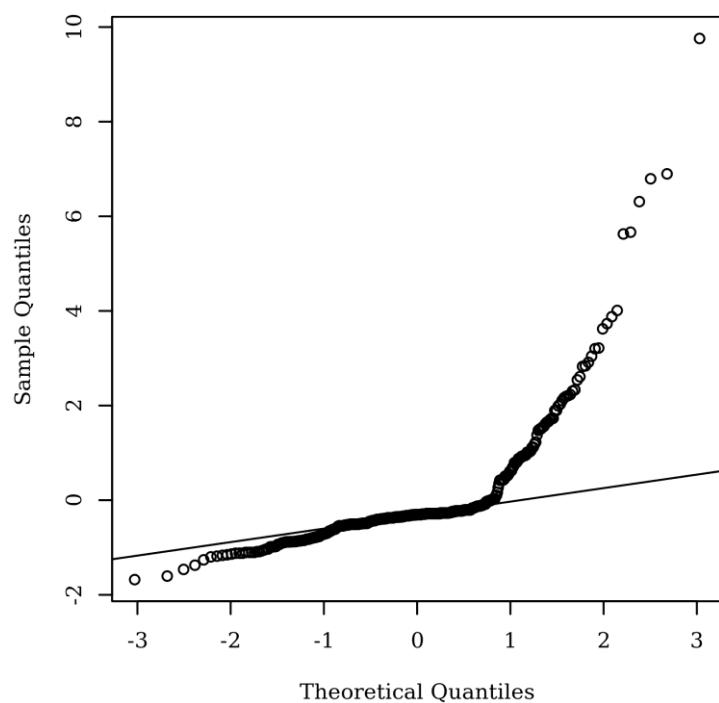


Figure 5.11.4. Q-Q scatterplot testing normality.

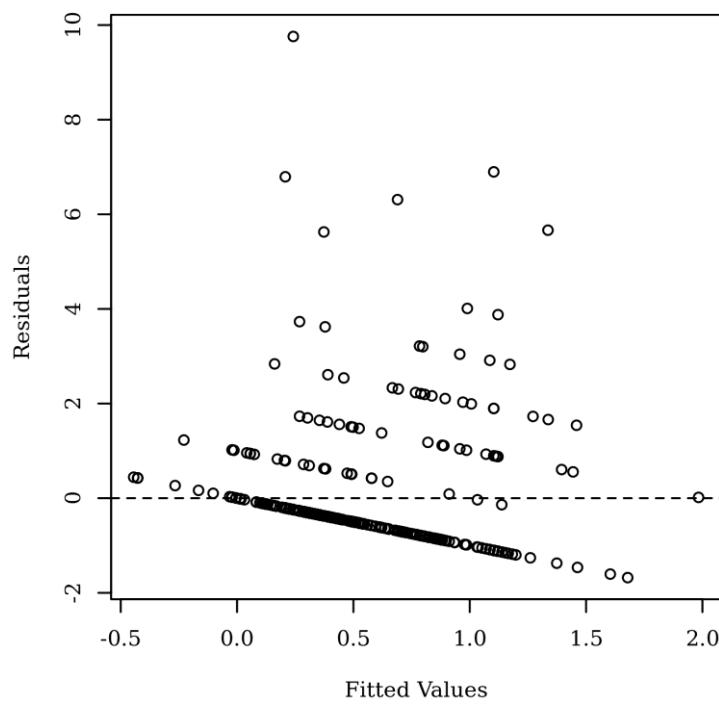


Figure 5.11.5. Residuals scatterplot testing homoscedasticity.

Table 5.11.7. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.

Variable	VIF
AGE	1.07
Gender	1.08
Ethnic Group	4.89
Religion	4.82
Sexual orientation	1.26
Disabilities	1.58
Mental health	1.33
Physical health	1.40

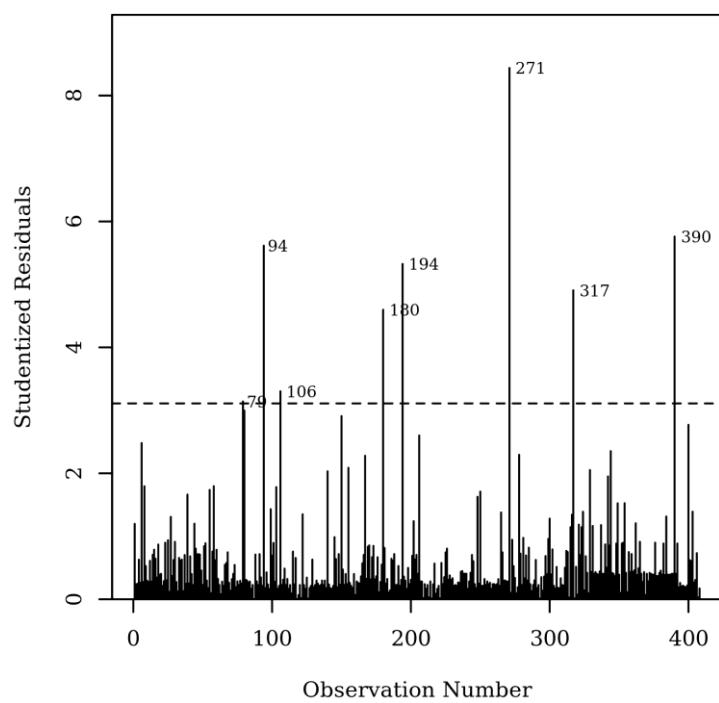


Figure 5.11.6. Studentised residuals plot for outlier detection.

**Table 6.7.2. Frequencies for Nominal Variables Related to Parents.**

Variable	n	%
Friendly relationship with parents		
Kind of	63	15.44
No	23	5.64
Yes	322	78.92
Missing	0	0.00
Parenting style		
Authoritarian	65	15.93
Other	3	0.74
Permissive	292	71.57
Supportive	1	0.25
Uninvolved	47	11.52
Missing	0	0.00
Parental communication		
No	64	15.69
Only when I am in big trouble	111	27.21
Yes	233	57.11
Missing	0	0.00
Parental awareness		
Everything that is going on in your life	34	8.33
Most of what is going on in your life	248	60.78
Only the serious things	95	23.28
They don't know anything about what is going on in your life	31	7.60
Missing	0	0.00
Parental support		
No	32	7.84
Sort of	92	22.55
Yes	284	69.61
Missing	0	0.00
Parental engagement		
No	63	15.44
Sometimes	157	38.48
Yes	188	46.08
Missing	0	0.00
Skip school/parental awareness		
No	112	27.45
Yes	146	35.78
Missing	150	36.76
Siblings		
No	39	9.56
Yes	369	90.44
Missing	0	0.00
Sibling relationship		
No	28	6.86
Sort of	81	19.85
Yes	264	64.71
Missing	35	8.58

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 6.7.3. *Frequencies for Nominal Variables Related to Siblings.*

Variable	n	%
Sibling support		
No	53	12.99
Sort of	100	24.51
Yes	213	52.21
Missing	42	10.29
Sibling teasing		
No	158	38.73
Yes	197	48.28
Missing	53	12.99
Sibling teasing parental awareness		
No	19	4.66
Yes	193	47.30
Missing	196	48.04
Parental reaction to sibling teasing		
Didn't do anything	2	0.49
Discussed the event with us	24	5.88
Discussed the event with us/Set rules about teasing	4	0.98
Discussed the event with us/Set rules about teasing/Told me to get over it	2	0.49
Discussed the event with us/Set rules about teasing/Told me to get over it/More than one from the list	1	0.25
Discussed the event with us/Set rules about teasing/Told me to get over it/Teased me as well	1	0.25
Discussed the event with us/Teased me as well	2	0.49
Discussed the event with us/Told me to get over it/Teased me as well/More than one from the list	1	0.25
Generally told me to ignore them	1	0.25
Got involved and had a good laugh about it, we always joke	1	0.25
Ignored it	2	0.49
its a family joke that I'm quite short its all done with good intentions	1	0.25
Its just banter	1	0.25
It was joking teasing so it was looked at lightly	1	0.25
Knew it was just brothers and sisters teasing each other, only responded if it went too far and feelings got hurt	1	0.25
Left us to it.	1	0.25
More than one from the list	38	9.31
More than one from the list/had a discussion with them, however its all just fun and games	1	0.25
Punished my brother/sister	14	3.43
Punished my brother/sister/Discussed the event with us	1	0.25

Punished my brother/sister/Discussed the event with us/More than one from the list	1	0.25
Punished my brother/sister/Discussed the event with us/Set rules about teasing	2	0.49
Punished my brother/sister/Discussed the event with us/Set rules about teasing/More than one from the list	1	0.25
Punished my brother/sister/NA	1	0.25
Punished my brother/sister/Set rules about teasing	2	0.49
Punished my brother/sister/Set rules about teasing/Teased me as well/More than one from the list	1	0.25
Punished my brother/sister/Told me to get over it	1	0.25
Punished my brother/sister/Told me to get over it/Teased me as well/More than one from the list	1	0.25
Punished my brother/sister/Usually told me off too because I used to beat my brother up if he was mean to me	1	0.25
Set rules about teasing	13	3.19
Set rules about teasing/More than one from the list	1	0.25
Set rules about teasing/Teased me as well	1	0.25
Set rules about teasing/Told me to get over it/More than one from the list	1	0.25
Set rules about teasing/Told me to get over it/Teased me as well/More than one from the list/Depends whether it was in jest.	1	0.25
Teased me as well	24	5.88
Teased me as well/its only banter	1	0.25
Teased me as well/More than one from the list	1	0.25
tell them not to do it again	1	0.25
the teasing was a joke, it wasn't in a nasty way	1	0.25
They understood it was done with good intentions	1	0.25
Told me to get over it	22	5.39
Told me to get over it/Teased me as well	10	2.45
Told me to get over it/Teased me as well/More than one from the list	2	0.49
Told me to ignore it	1	0.25
Told to stop but knew it was a joke and not harmful	1	0.25
Missing	215	52.70
Friends		
No	39	9.56
Yes	369	90.44
Missing	0	0.00
Friends awareness		
Everything that is going on in your life	83	20.34
Most of what is going on in your life	250	61.27
Only the serious things	38	9.31

They don't know anything about what is going on in your life	8	1.96
Missing	29	7.11
Friend support		
No	5	1.23
Sort of	61	14.95
Yes	320	78.43
Missing	22	5.39
Parents know friends		
No	19	4.66
Sort of	81	19.85
Yes	287	70.34
Missing	21	5.15

Note. Due to rounding errors, percentages may not equal 100%.

Table 6.7.4. *Observed and Expected Frequencies.*

SB Victimisation occurrence	Friendly relationship with parents		
	Kind of	No	Yes
No	14[25.01]	6[9.13]	142[127.85]
Yes	49[37.99]	17[13.87]	180[194.15]

Note.  $\chi^2(2) = 12.42$ ,  $p = .002$ . Values formatted as Observed [Expected].

Table 6.7.5. *Observed and Expected Frequencies.*

SB Victimisation occurrence	Parental support		
	No	Sort of	Yes
No	12[12.71]	50[36.53]	100[112.76]
Yes	20[19.29]	42[55.47]	184[171.24]

Note.  $\chi^2(2) = 10.70$ ,  $p = .005$ . Values formatted as Observed [Expected].

Table 6.7.6. *Observed and Expected Frequencies.*

SB Perpetration occurrence	Friendly relationship with parents		
	Kind of	No	Yes
No	50[50.65]	14[18.49]	264[258.86]
Sort of	5[5.56]	6[2.03]	25[28.41]
Yes	8[6.79]	3[2.48]	33[34.73]

Note.  $\chi^2(4) = 9.84$ ,  $p = .043$ . Values formatted as Observed[Expected].

Table 6.7.7. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Friendly relationship with parents.

Level	Mean Rank
Kind of	253.40
No	248.50
Yes	191.79

Note.  $\chi^2(2) = 18.98, p < .001$ .

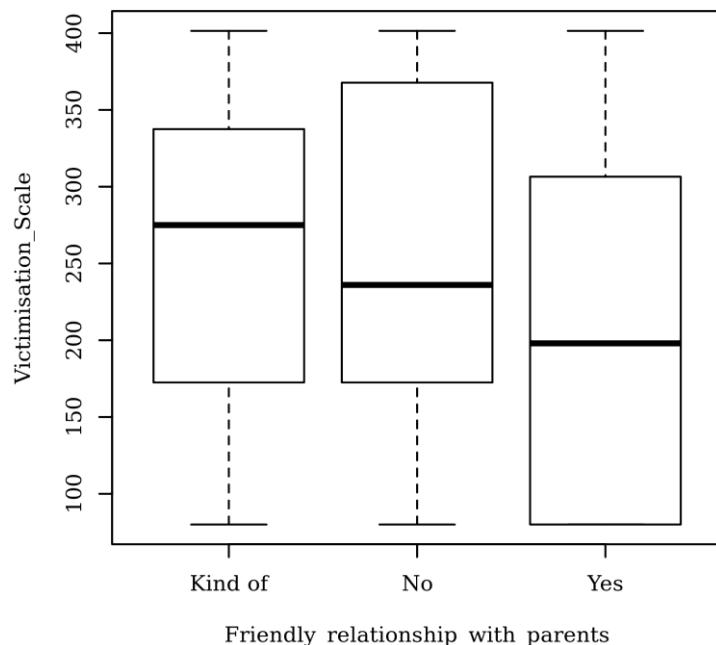


Figure 6.7.1. Ranked Values of SB Victimisation intensity by the levels of Friendly relationship with parents.

Table 6.7.8. Pairwise Comparisons for the Mean Ranks of SB Victimisation intensity by Levels of Friendly relationship with parents.

Comparison	Observed Difference	Critical Difference
Kind of-No	4.90	68.78
Kind of-Yes	61.62	38.89
No-Yes	56.71	60.93

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 6.7.9. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Parenting style.

Level	Mean Rank
Authoritarian	207.98
Other	167.50
Permissive	195.19
Uninvolved	260.67

Note.  $\chi^2(3) = 13.80, p = .003$ .

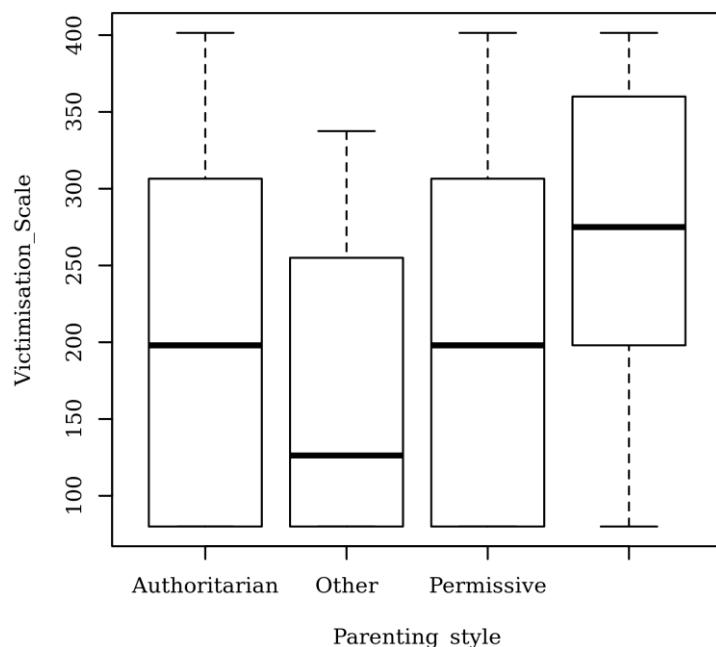


Figure 6.7.2. Ranked Values of SB Victimization intensity by the levels of Parenting style.

Table 6.7.10. Pairwise Comparisons for the Mean Ranks of SB Victimization intensity by Levels of Parenting style.

Comparison	Observed Difference	Critical Difference
Authoritarian-Other	40.48	160.27
Authoritarian-Permissive	12.79	42.67
Authoritarian-Uninvolved	52.69	59.57
Other-Permissive	27.69	156.62
Other-Uninvolved	93.17	162.04
Permissive-Uninvolved	65.48	48.90

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 6.7.11. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Parental support.

Level	Mean Rank
No	221.91
Sort of	171.74
Yes	213.15

Note.  $\chi^2(2) = 9.95, p = .007$ .

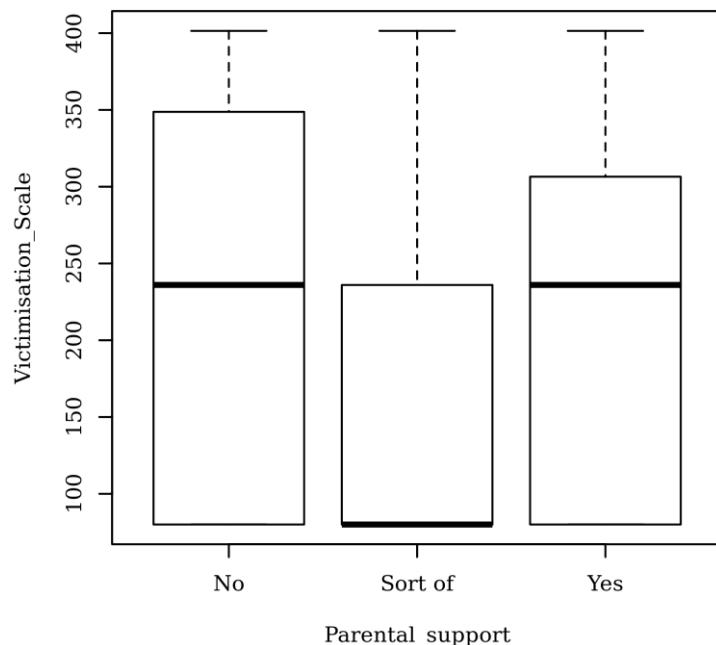


Figure 6.7.3. Ranked Values of SB Victimization intensity by the levels of Parental support.

Table 6.6.12. Pairwise Comparisons for the Mean Ranks of SB Victimization intensity by Levels of Parental support.

Comparison	Observed Difference	Critical Difference
No-Sort of	50.16	57.94
No-Yes	8.76	52.64
Sort of-Yes	41.41	33.87

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 6.7.13. Kruskal-Wallis Rank Sum Test for SB Perpetration intensity by Friendly relationship with parents.

Level	Mean Rank
Kind of	201.02
No	247.43
Yes	202.11

Note.  $\chi^2(2) = 6.88, p = .032$ .

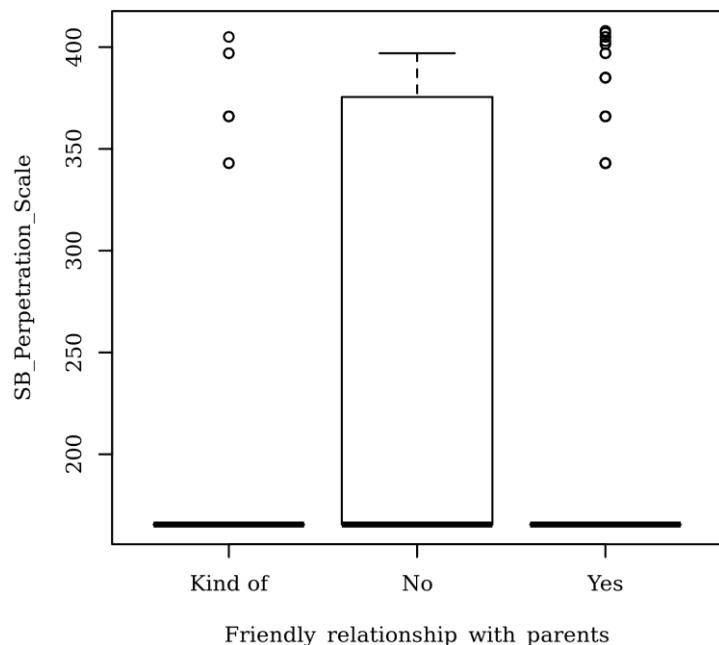


Figure 6.7.4. Ranked Values of SB Perpetration intensity by the levels of Friendly relationship with parents.

Table 6.7.14. Observed and Expected Frequencies.

SB Victimation occurrence	Sibling teasing	
	No	Yes
No	77[64.54]	68[80.46]
Yes	81[93.46]	129[116.54]

Note.  $\chi^2(1) = 7.33, p = .007$ . Values formatted as Observed [Expected].

Table 6.7.15. *Observed and Expected Frequencies*.

SB Perpetration occurrence	Siblings	
	No	Yes
No	27[31.35]	301[296.65]
Sort of	8[3.44]	28[32.56]
Yes	4[4.21]	40[39.79]

Note.  $\chi^2(2) = 7.36, p = .025$ . Values formatted as Observed[Expected].

Table 6.7.16. *Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Sibling support*.

Level	Mean Rank
No	211.55
Sort of	193.22
Yes	171.96

Note.  $\chi^2(2) = 7.62, p = .022$ .

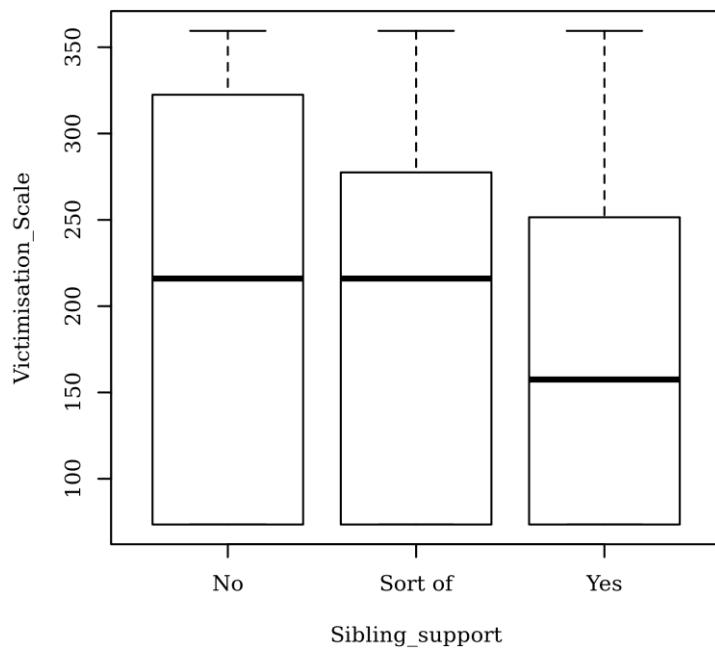


Figure 6.7.5. Ranked Values of SB Victimisation intensity by the levels of Sibling support.

Table 6.7.17. *Pairwise Comparisons for the Mean Ranks of SB Victimisation intensity by Levels of Sibling support.*

Comparison	Observed Difference	Critical Difference
No-Sort of	18.32	43.03
No-Yes	39.59	38.88
Sort of-Yes	21.27	30.70

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 6.7.18. *Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Sibling teasing.*

Level	Mean Rank
No	164.96
Yes	188.46

Note.  $\chi^2(1) = 4.94, p = .026$ .

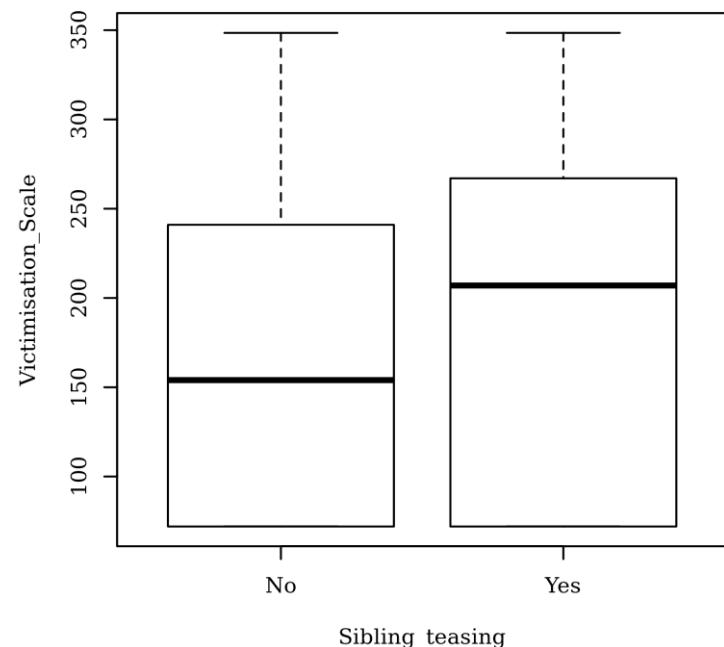


Figure 6.7.6. Ranked Values of SB Victimisation intensity by the levels of Sibling teasing.

Table 6.7.19. Pairwise Comparisons for the Mean Ranks of SB Victimisation intensity by Levels of Sibling teasing.

Comparison	Observed Difference	Critical Difference
No-Yes	23.50	21.48

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 6.7.20. Kruskal-Wallis Rank Sum Test for SB Victimisation intensity by Parental reaction to sibling teasing.

Level	Mean Rank
Ignored it	149.07
Discussed the event with us	82.93
It was a family joke, normal behaviour between siblings	57.50
More than one from the list	99.32
Punished my sibling	99.75
Set rules about teasing	101.50
Teased me as well	96.54
Told me to get over it	104.26

Note.  $\chi^2(7) = 14.26, p = .047$ .

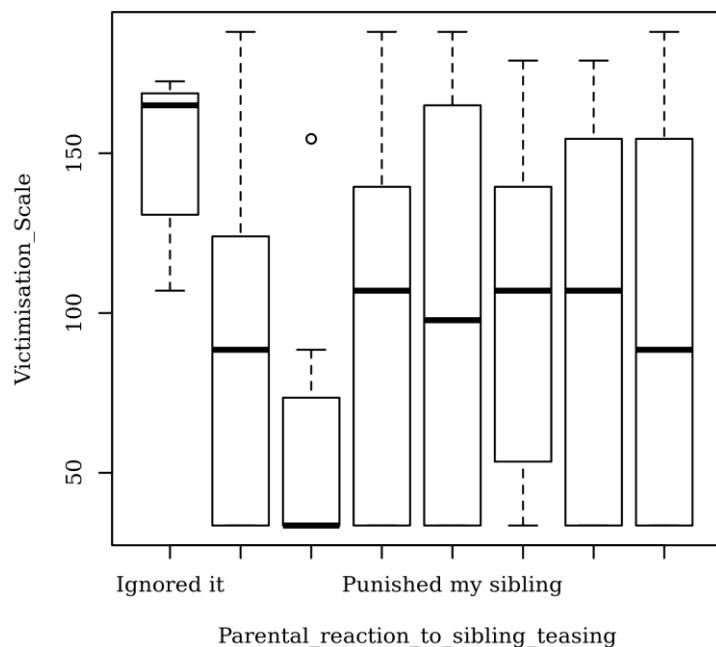


Figure 6.7.7. Ranked Values of SB Victimisation intensity by the levels of Parental reaction to sibling teasing.

Table 6.7.21. *Pairwise Comparisons for the Mean Ranks of SB Victimisation intensity by Levels of Parental reaction to sibling teasing.*

Comparison	Observed Difference	Critical Difference
Ignored it-Discussed the event with us	66.14	72.24
Ignored it-It was a family joke, normal behaviour between siblings	91.57	87.93
Ignored it-More than one from the list	49.75	71.62
Ignored it-Punished my sibling	49.32	74.30
Ignored it-Set rules about teasing	47.57	77.15
Ignored it-Teased me as well	52.53	74.95
Ignored it-Told me to get over it	44.81	72.42
Discussed the event with us-It was a family joke, normal behaviour between siblings	25.43	65.21
Discussed the event with us-More than one from the list	16.39	40.63
Discussed the event with us-Punished my sibling	16.82	45.18
Discussed the event with us-Set rules about teasing	18.57	49.72
Discussed the event with us-Teased me as well	13.61	46.24
Discussed the event with us-Told me to get over it	21.34	42.02
It was a family joke, normal behaviour between siblings-More than one from the list	41.82	64.53
It was a family joke, normal behaviour between siblings-Punished my sibling	42.25	67.48
It was a family joke, normal behaviour between siblings-Set rules about teasing	44.00	70.61
It was a family joke, normal behaviour between siblings-Teased me as well	39.04	68.20
It was a family joke, normal behaviour between siblings-Told me to get over it	46.76	65.41
More than one from the list-Punished my sibling	0.43	44.18
More than one from the list-Set rules about teasing	2.18	48.82
More than one from the list-Teased me as well	2.78	45.27
More than one from the list-Told me to get over it	4.94	40.94
Punished my sibling-Set rules about teasing	1.75	52.66
Punished my sibling-Teased me as well	3.21	49.39
Punished my sibling-Told me to get over it	4.51	45.46
Set rules about teasing-Teased me as well	4.96	53.58
Set rules about teasing-Told me to get over it	2.76	49.98
Teased me as well-Told me to get over it	7.72	46.52

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 6.7.22. *Observed and Expected Frequencies.*

SB Perpetration occurrence	Friends awareness			
	Everything that is going on in your life	Most of what is going on in your life	Only the serious things	They don't know anything about what is going on in your life
No	65[66.36]	207[199.87]	28[30.38]	3[6.40]
Sort of	10[7.66]	20[23.09]	4[3.51]	1[0.74]
Yes	8[8.98]	23[27.04]	6[4.11]	4[0.87]

Note.  $\chi^2(6) = 16.49$ ,  $p = .011$ . Values formatted as Observed [Expected].

Table 6.7.23. *Variance Inflation Factors for Friendly relationship with parents, Parental support, and Sibling teasing.*

Variable	VIF
Friendly relationship with parents	1.06
Parental support	1.04
Sibling teasing	1.03

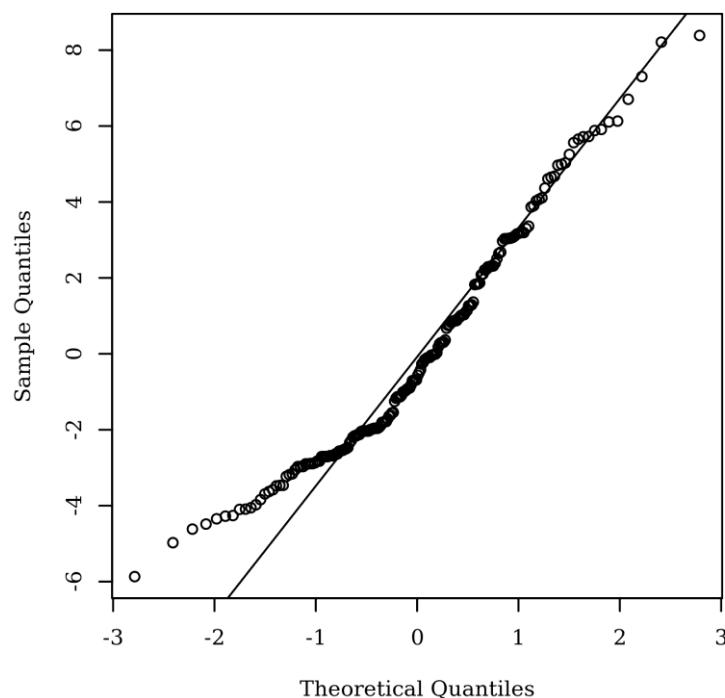


Figure 6.7.8. Q-Q scatterplot testing normality.

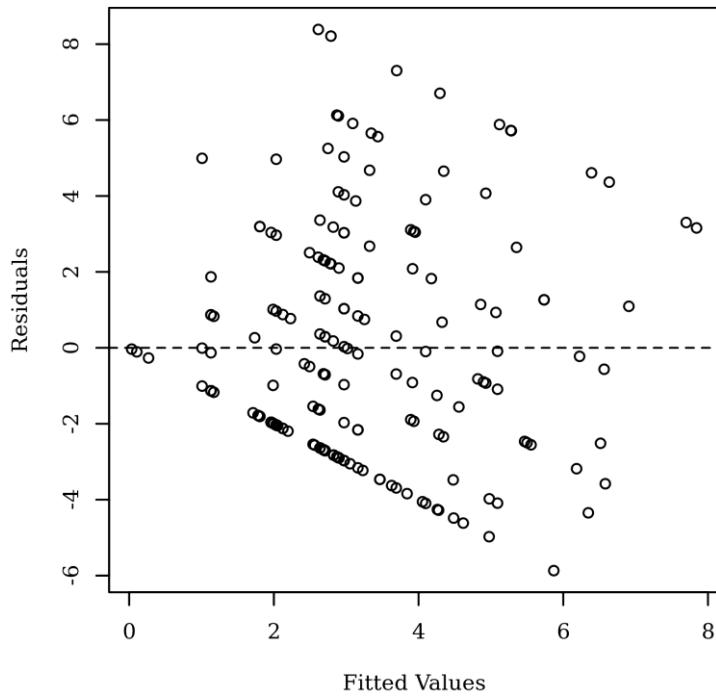
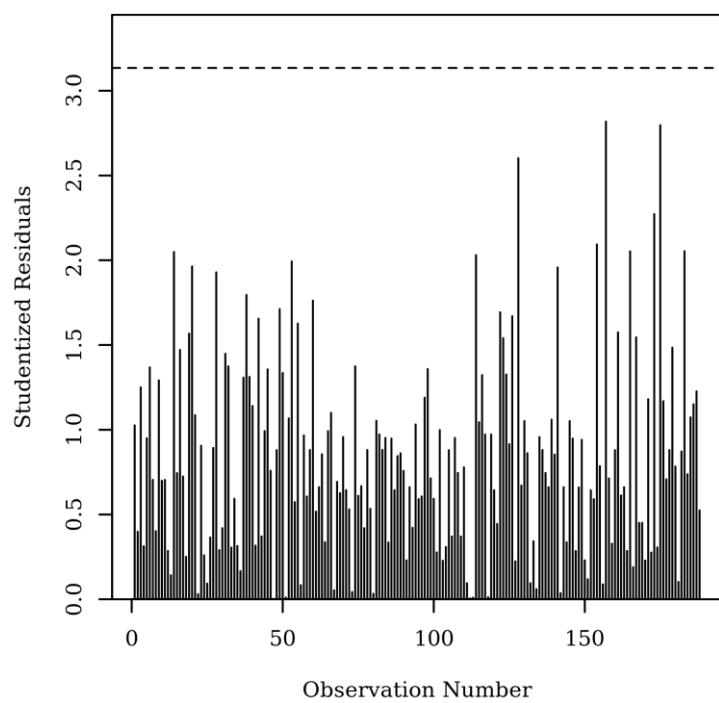


Figure 6.7.9. Residuals scatterplot testing homoscedasticity.

Table 6.7.25. Variance Inflation Factors for Friendly relationship with parents, Parenting style, Parental support, Sibling support, Sibling teasing, and Parental reaction to sibling teasing.

Variable	VIF
Friendly relationship with parents	1.45
Parenting style	1.16
Parental support	1.13
Sibling support	1.40
Sibling teasing	1.11
Parental reaction to sibling teasing	1.74



*Figure 6.7.10.* Studentised residuals plot for outlier detection.

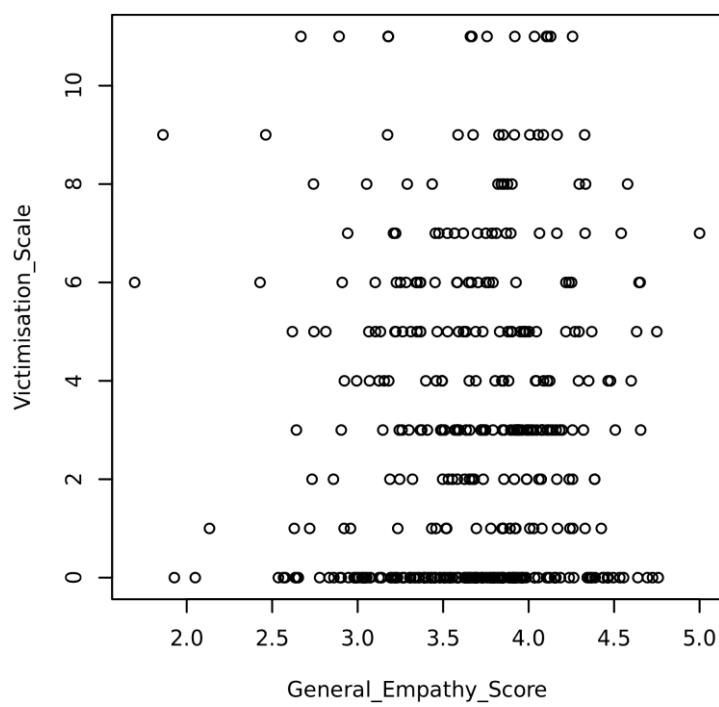
*Table 6.7.27. Variance Inflation Factors for Friendly relationship with parents, Siblings, and Friends awareness.*

Variable	VIF
Friendly relationship with parents	1.03
Siblings	1.00
Friends awareness	1.03

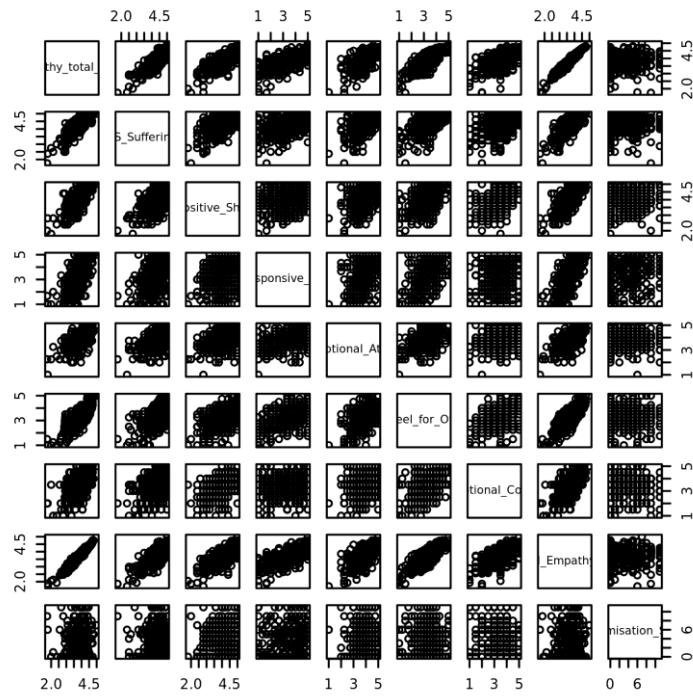
Table 7.11.1. *Summary Descriptive Statistics.*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE<sub>M</sub></i>	Skewness	Kurtosis
Self-esteem	17.27	5.66	408	0.28	-0.11	0.09
Self-reported impulsivity	10.50	2.94	408	0.15	0.34	-0.02
Self-control	18.35	3.14	408	0.16	-0.51	-0.10
GNBE	19.97	5.33	408	0.26	-0.54	-0.29
GR	21.81	4.23	408	0.21	-0.78	0.35
GNSE	22.57	4.64	408	0.23	-1.04	0.82
GSW	13.00	4.67	408	0.23	0.36	-0.10
Guilt	19.34	3.32	408	0.16	-0.49	0.24
Empathy	3.81	0.49	408	0.02	-0.71	1.38
Suffering	4.24	0.52	408	0.03	-1.02	1.94
Positive Sharing	3.98	0.62	408	0.03	-0.47	0.11
Responsive Crying	3.39	1.08	408	0.05	-0.43	-0.65
Emotional Attention	3.79	0.63	408	0.03	-0.51	0.53
Feel for Others	3.24	0.76	408	0.04	-0.37	0.26
Emotional Contagion	3.37	0.80	408	0.04	-0.32	0.12
Anger	18.56	6.36	408	0.32	0.29	-0.67
Physical Aggression	19.80	8.10	408	0.40	0.64	-0.44
Verbal Aggression	15.94	4.16	408	0.21	-0.03	-0.62
Hostility	25.45	6.00	408	0.30	-0.19	-0.16
HARM	3.73	0.74	408	0.04	-0.71	0.96
FAIRNESS	3.77	0.64	408	0.03	-0.51	0.08
IN-GROUP	2.65	0.78	408	0.04	0.03	-0.39
AUTHORITY	2.69	0.77	408	0.04	-0.24	-0.04
PURITY	2.49	0.84	408	0.04	0.03	0.02
PROGRESSIVISM	1.14	0.76	408	0.04	0.41	0.45
Morality	16.46	2.49	408	0.12	-0.13	0.08

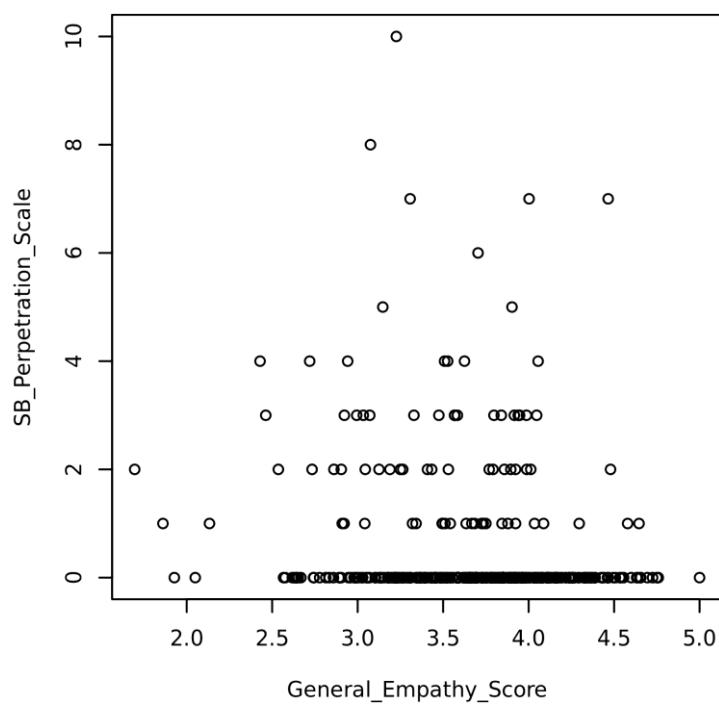
*Note.* '-' denotes the sample size is too small to calculate statistic.



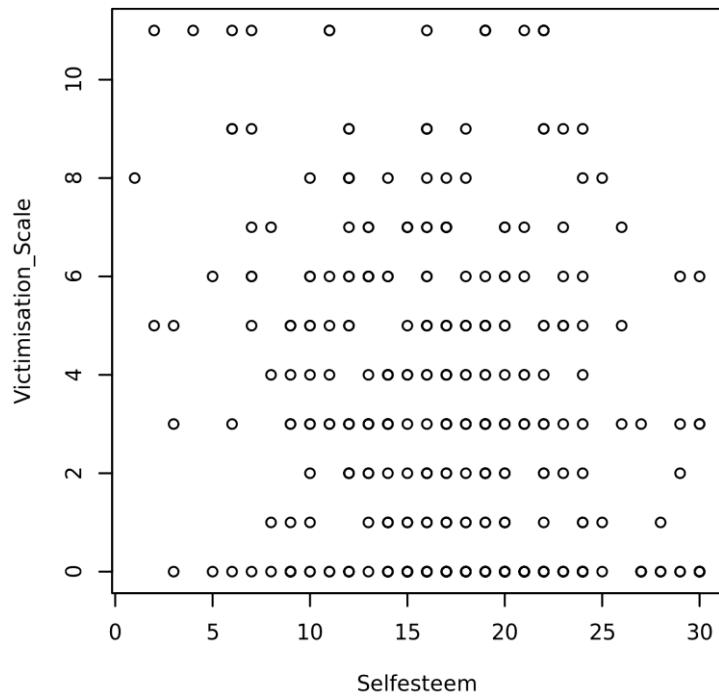
*Figure 7.11.1.1.* Scatterplot between Empathy Score and SB Victimation intensity.



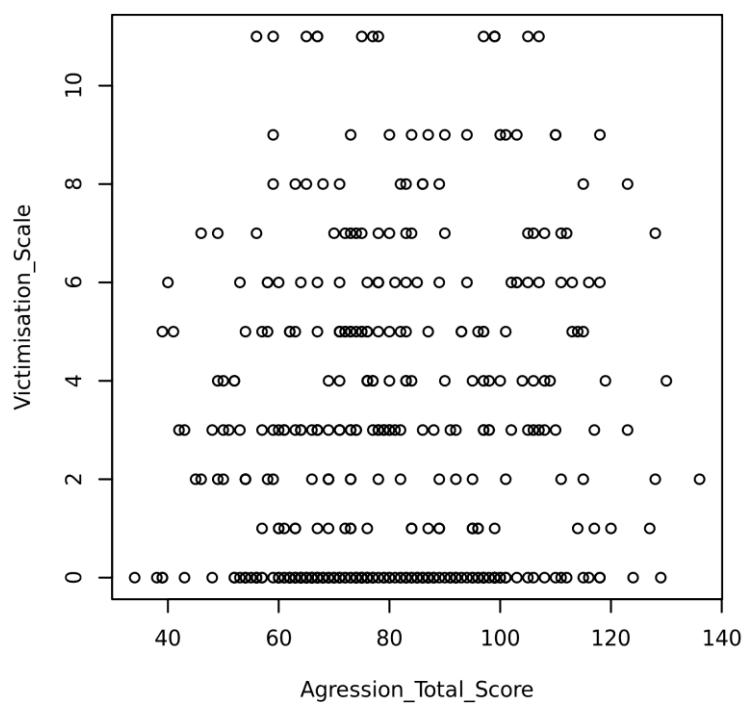
*Figure 7.11.1.2.* Scatterplot matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and SB Victimisation intensity.



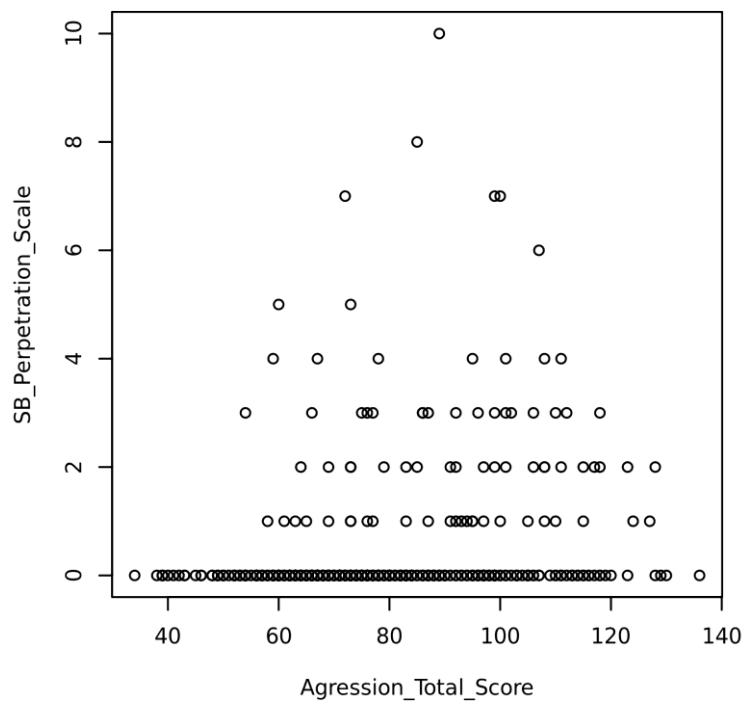
*Figure 7.11.1.3.* Scatterplot between Empathy mean score and SB Perpetration intensity.



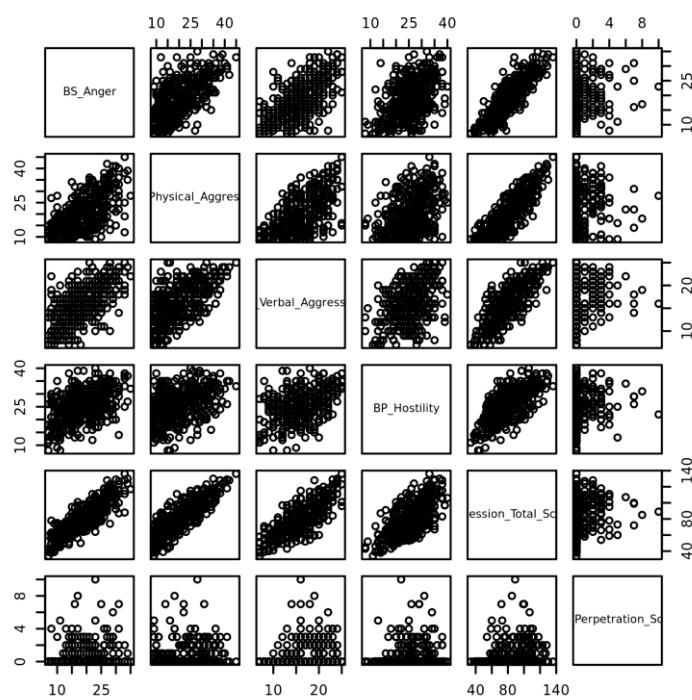
*Figure 7.11.2.1.* Scatterplot between Self-esteem and SB Victimation intensity.



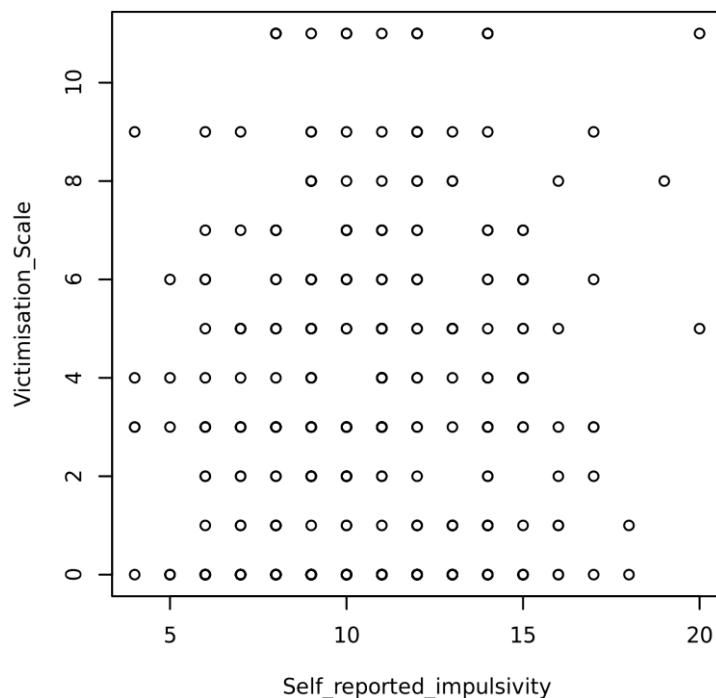
*Figure 7.11.3.1.* Scatterplot between Aggression and SB Victimation intensity.



*Figure 7.11.3.2.* Scatterplot between Aggression and SB Perpetration intensity.



*Figure 7.11.3.3.* Scatterplot matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression and SB Perpetration intensity.



*Figure 7.11.5.1.* Scatterplot between Self-reported impulsivity and SB Victimation intensity.

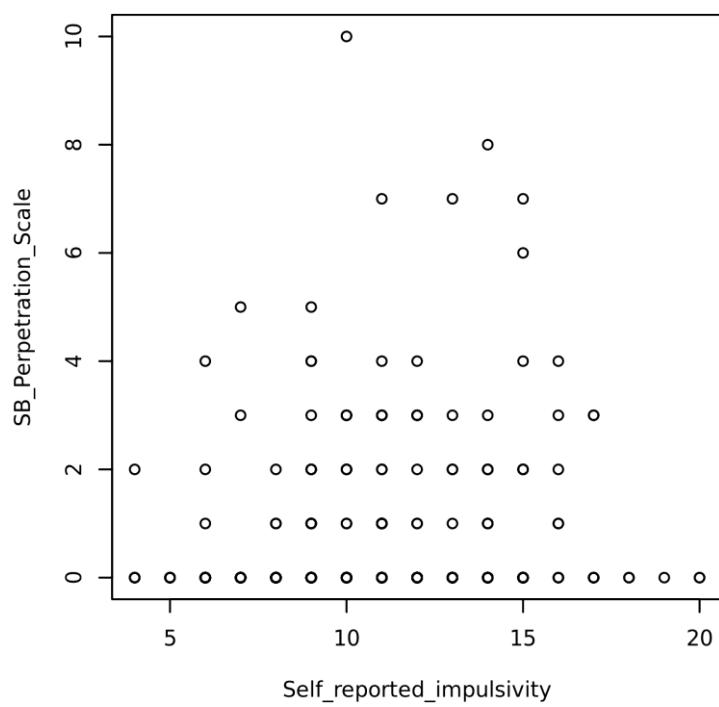


Figure 7.11.5.2. Scatterplot between Self-reported impulsivity and SB Perpetration intensity.

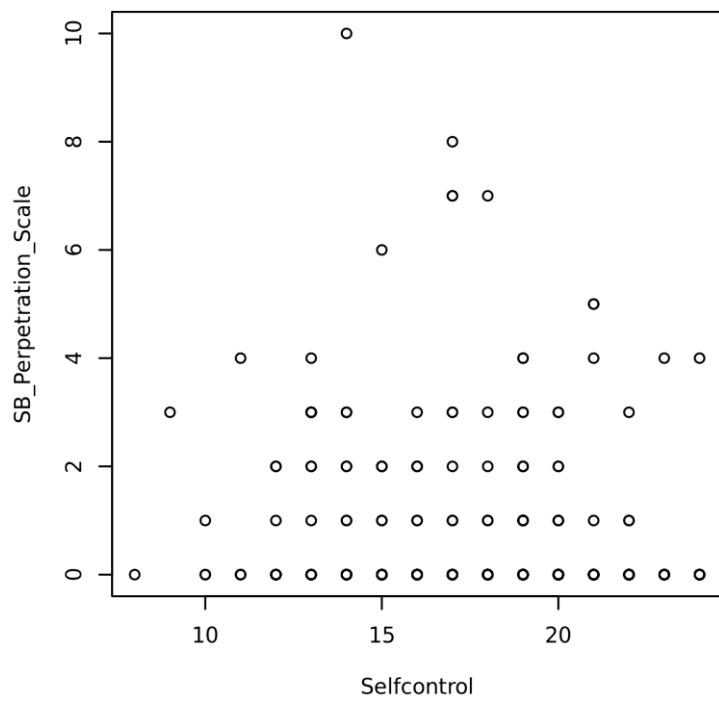


Figure 7.11.6.1. Scatterplot between Self-control and SB Perpetration intensity.

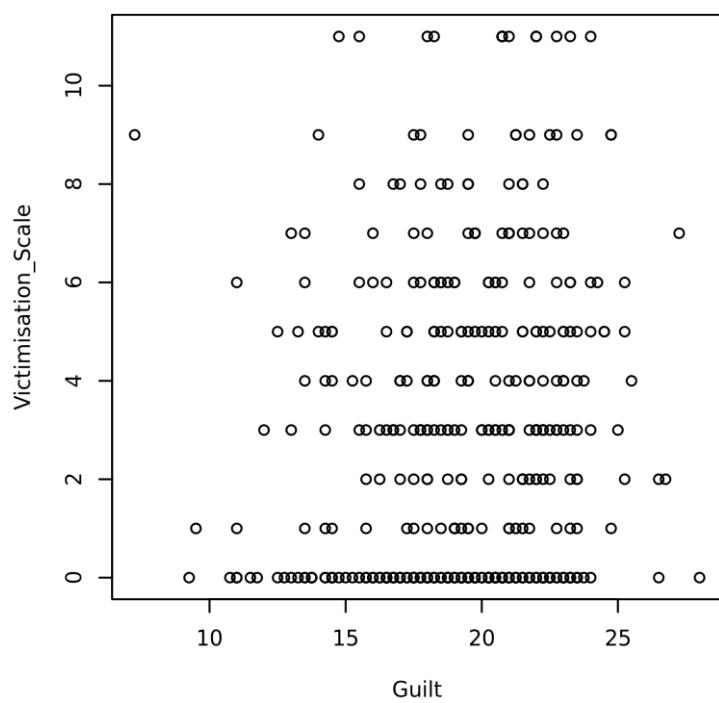


Figure 7.11.7.1. Scatterplot between Guilt and SB Victimation intensity.

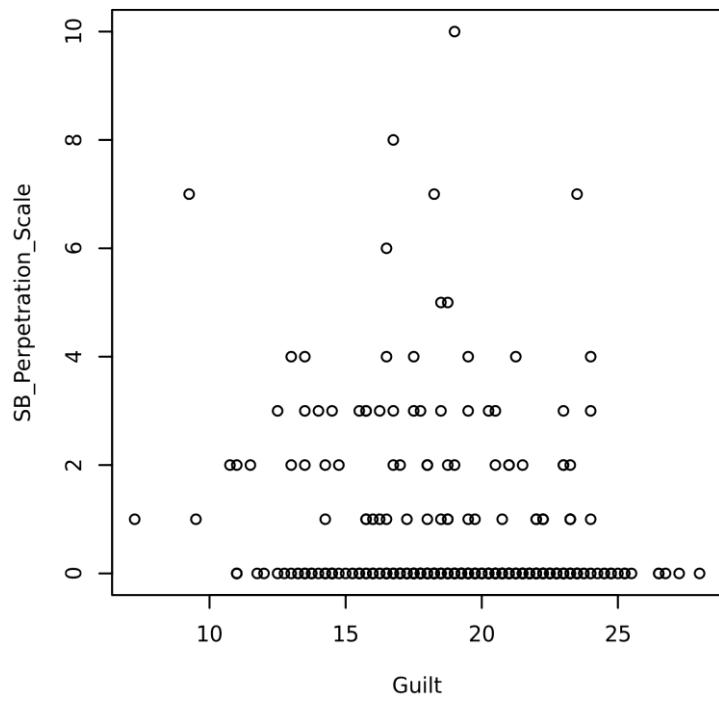
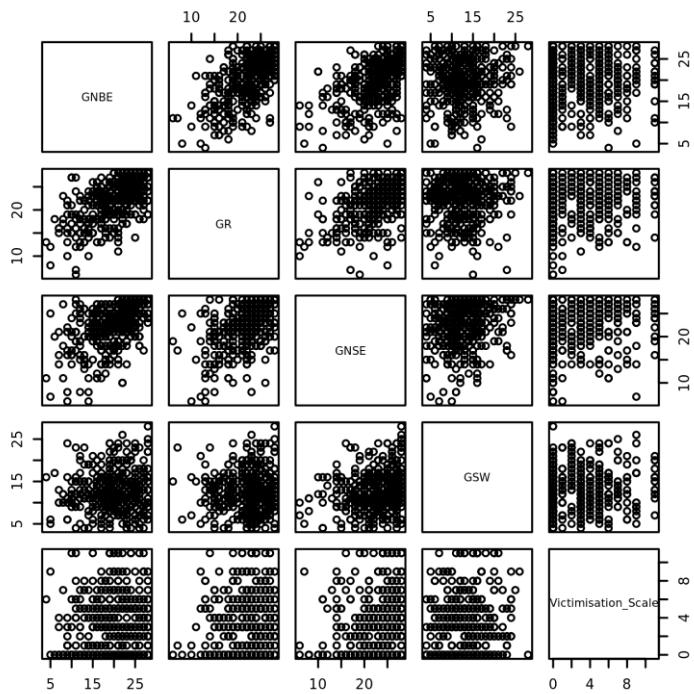
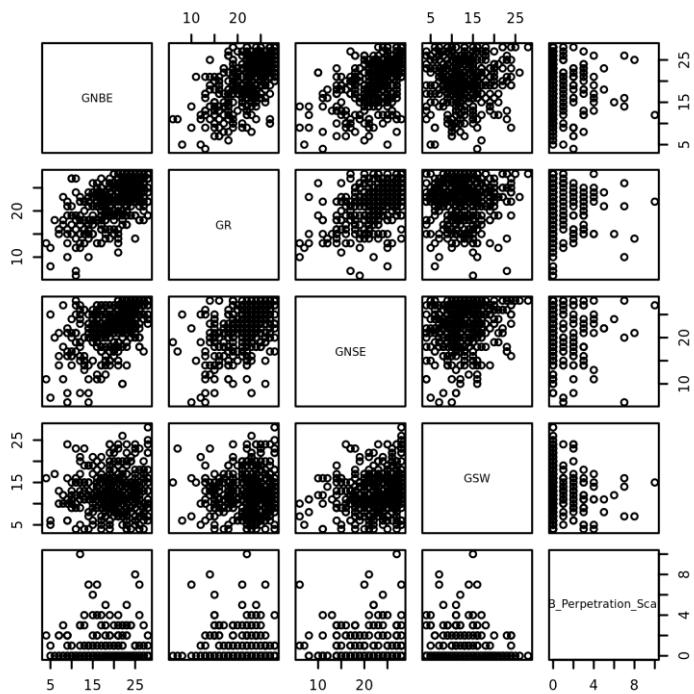


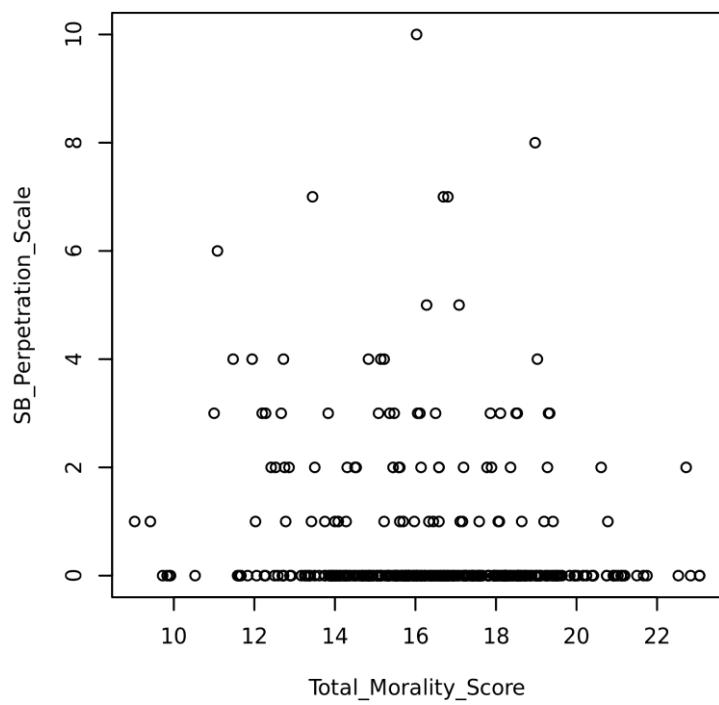
Figure 7.11.7.2. Scatterplot between Guilt and SB Perpetration intensity.



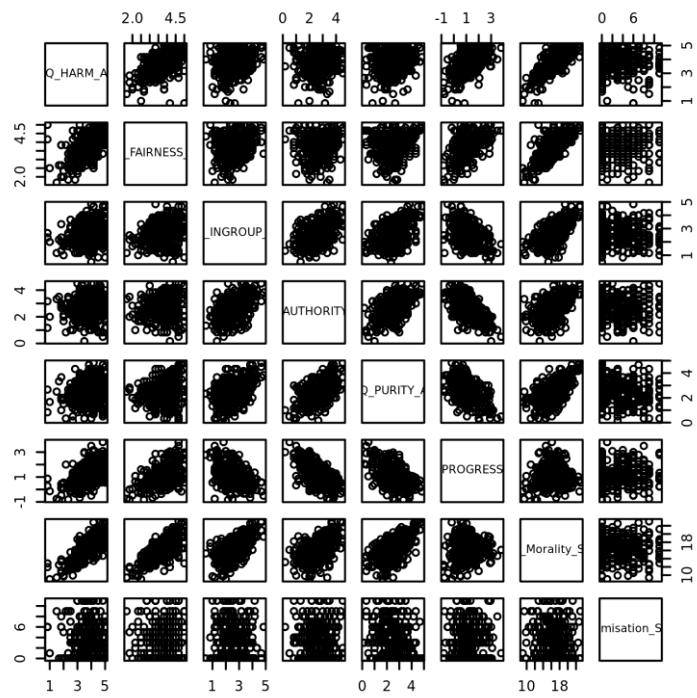
*Figure 7.11.7.3.* Scatterplot matrix among GNBE, GR, GNSE, GSW and SB Victimization intensity.



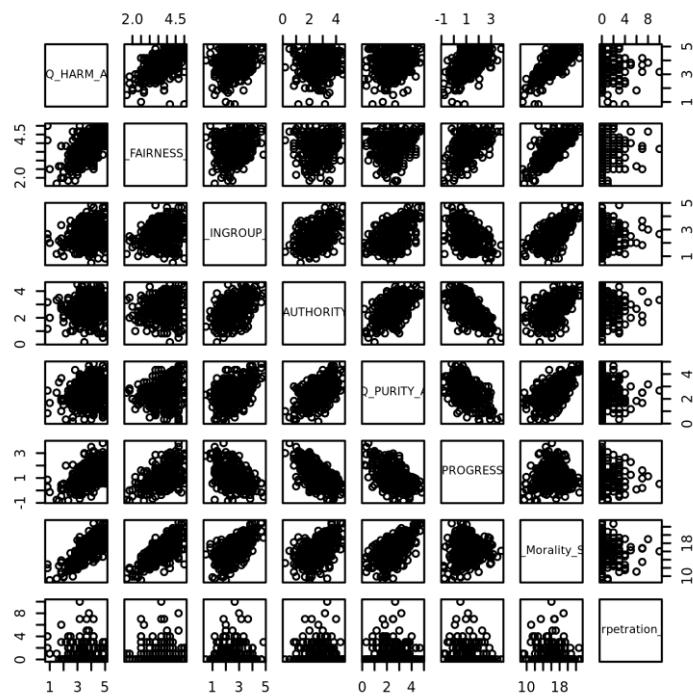
*Figure 7.11.7.4.* Scatterplot matrix among GNBE, GR, GNSE, GSW and SB Perpetration intensity.



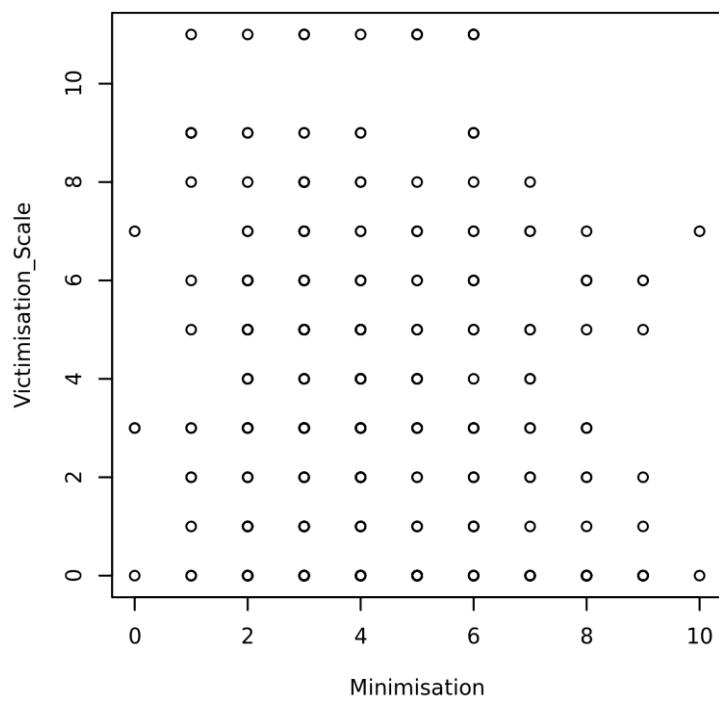
*Figure 7.11.8.1.* Scatterplot between Morality and SB Perpetration intensity.



*Figure 7.11.8.2.* Scatterplot matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity.



*Figure 7.11.8.3.* Scatterplot matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality and SB Victimisation intensity and SB Perpetration intensity.



*Figure 7.11.9.1.* Scatterplot between Minimisation and SB Victimisation intensity.

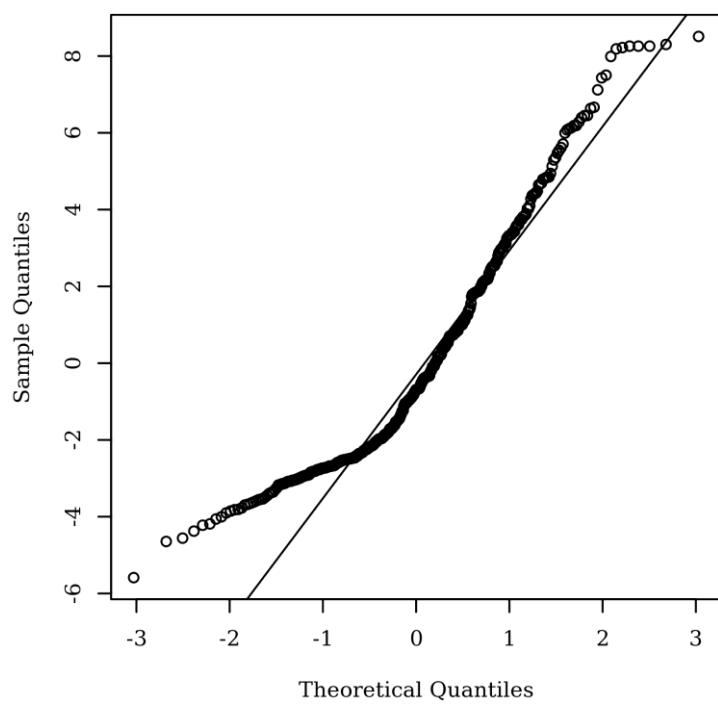


Figure 7.11.9.2. Q-Q scatterplot testing normality.

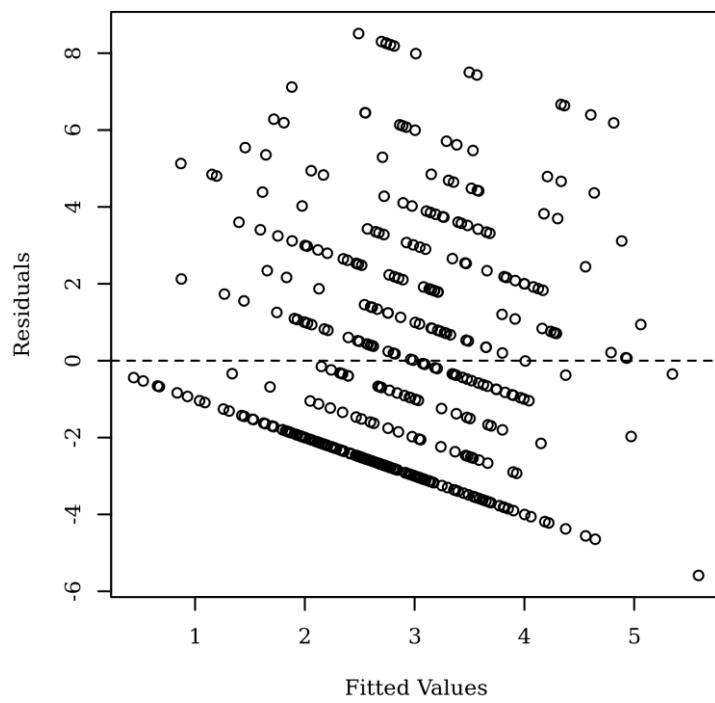


Figure 7.11.9.3. Residuals scatterplot testing homoscedasticity.

Table 7.11.9.1. Variance Inflation Factors for Self-esteem, Self-reported impulsivity, Guilt, and Minimisation.

Variable	VIF
Self-esteem	1.19
Self-reported impulsivity	1.16
Guilt	1.14
Minimisation	1.14

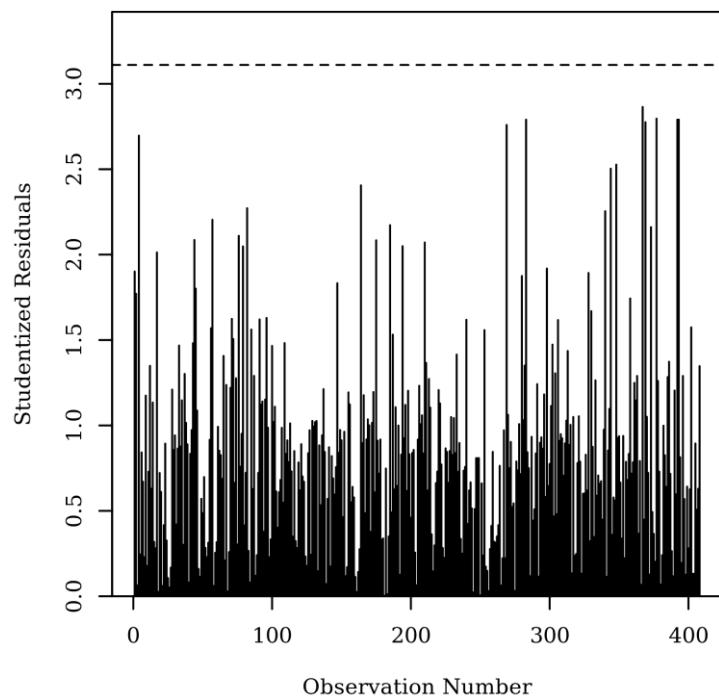


Figure 7.11.9.4. Studentised residuals plot for outlier detection.

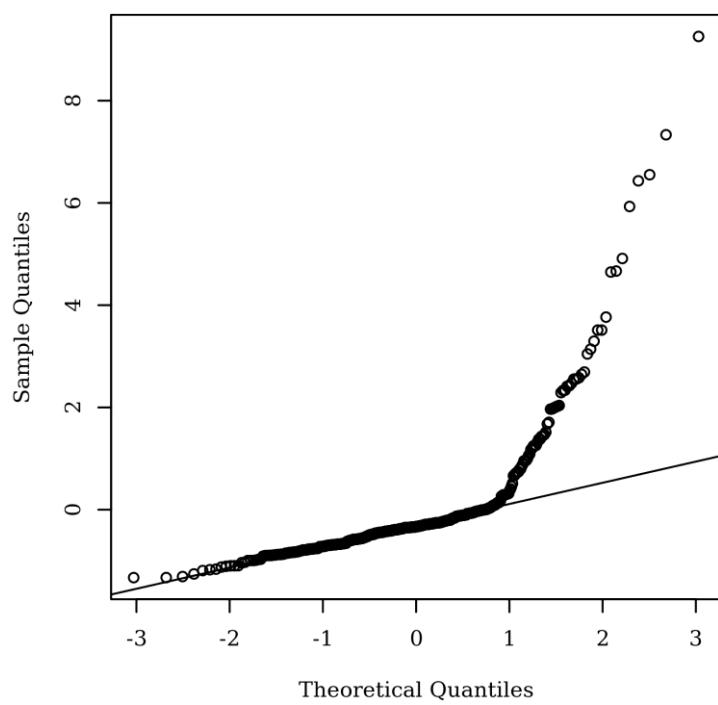


Figure 7.11.9.5. Q-Q scatterplot testing normality.

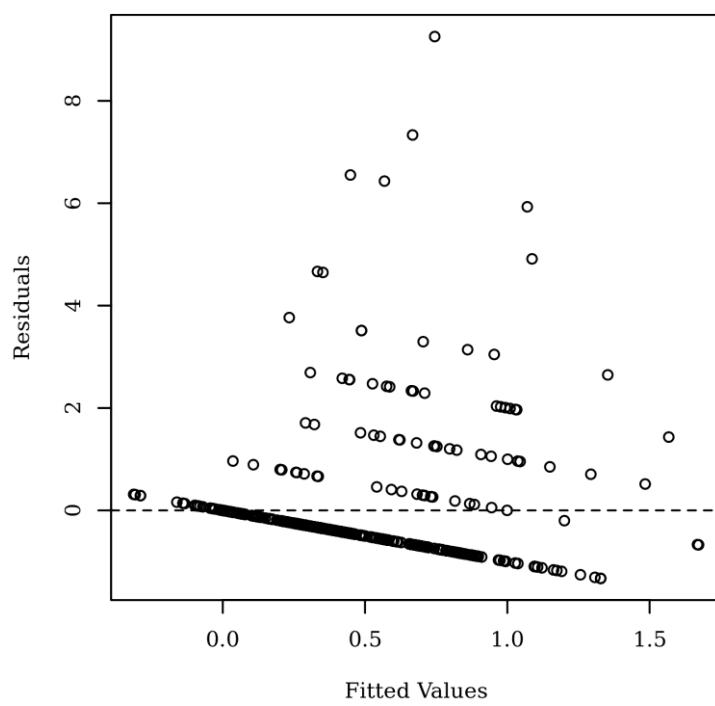


Figure 7.11.9.6. Residuals scatterplot testing homoscedasticity.

Table 7.11.9.3. Variance Inflation Factors for Self-reported impulsivity, Self-control, Guilt, Empathy mean score, Anger, Aggression, and Morality.

Variable	VIF
Self-reported impulsivity	1.41
Self-control	2.37
Guilt	1.45
Empathy mean score	1.42
Anger	4.34
Aggression	4.84
Morality	1.28

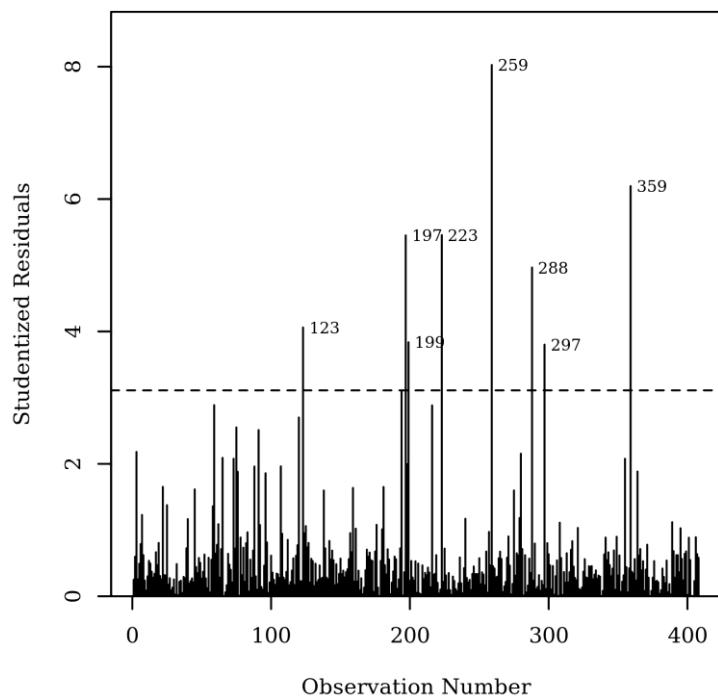


Figure 7.11.9.7. Studentised residuals plot for outlier detection.

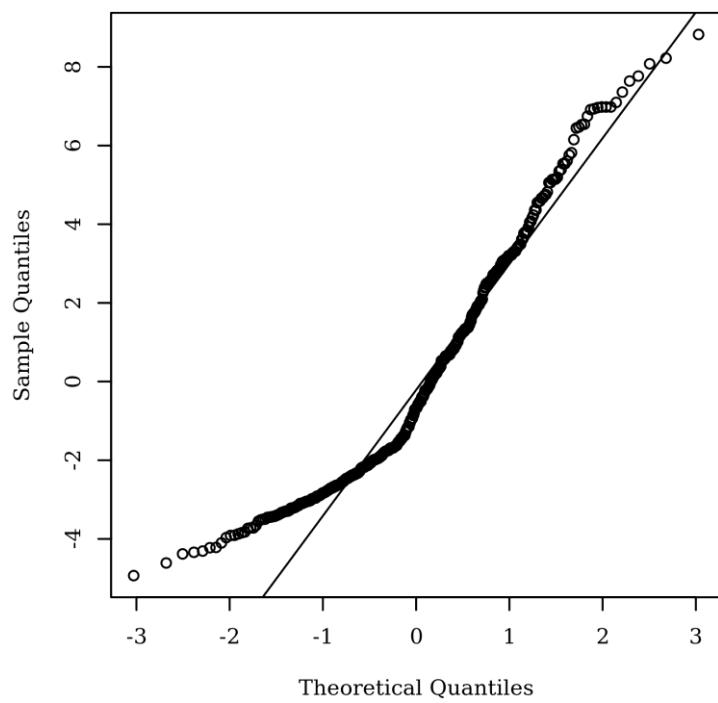


Figure 7.11.9.8. Q-Q scatterplot testing normality.

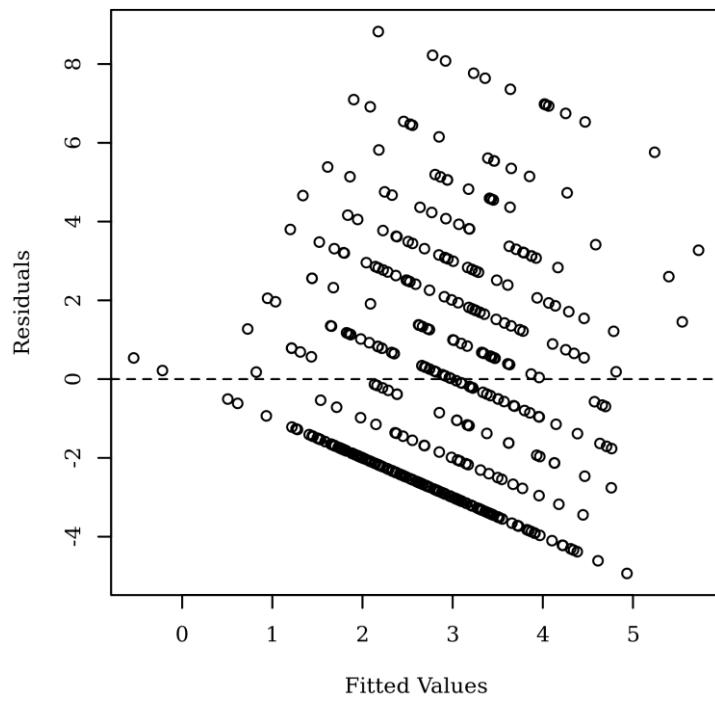


Figure 7.11.9.9. Residuals scatterplot testing homoscedasticity.

Table 7.11.9.5. Variance Inflation Factors for GNSE, GSW, Suffering, Emotional Contagion, Hostility, Purity, and Progressivism.

Variable	VIF
GNSE	1.28
GSW	1.13
Suffering	1.64
Emotional Contagion	1.14
Hostility	1.09
Purity	1.60
Progressivism	1.75

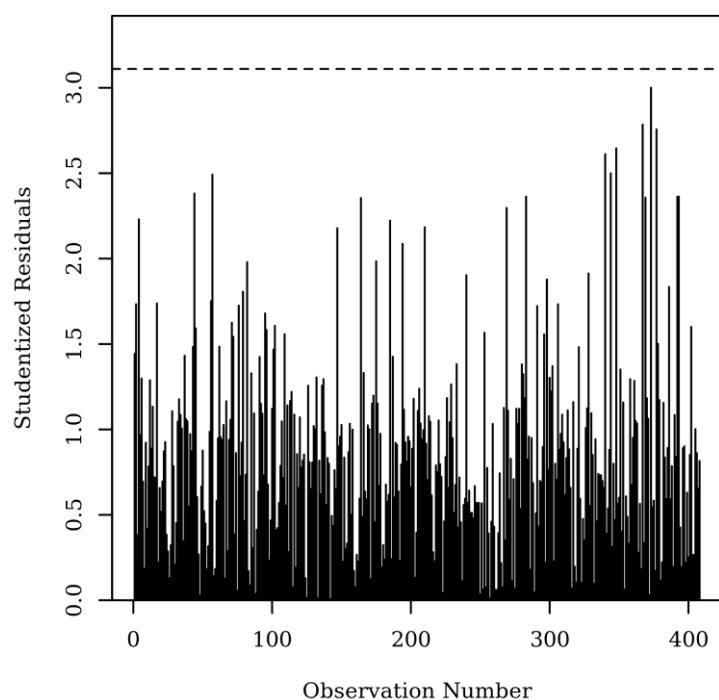


Figure 7.11.9.10. Studentised residuals plot for outlier detection.

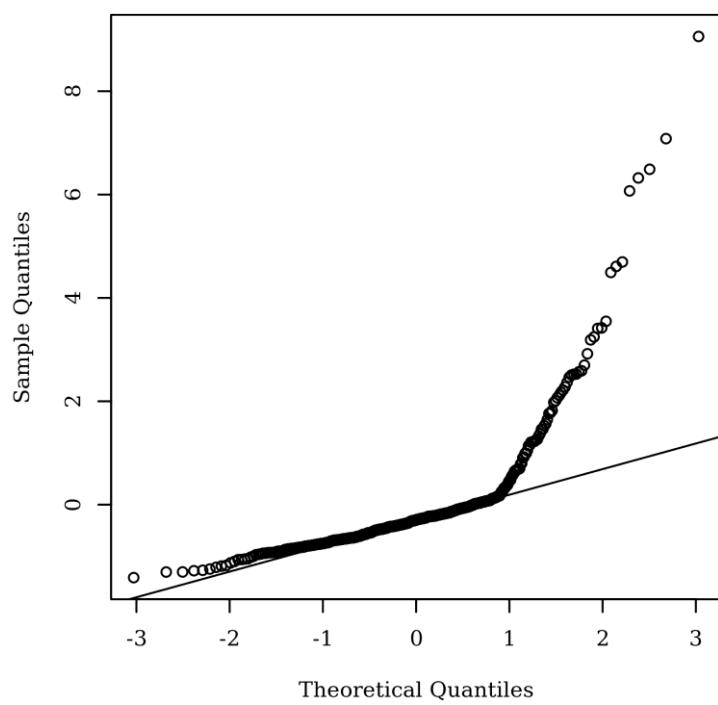


Figure 7.11.9.11. Q-Q scatterplot testing normality.

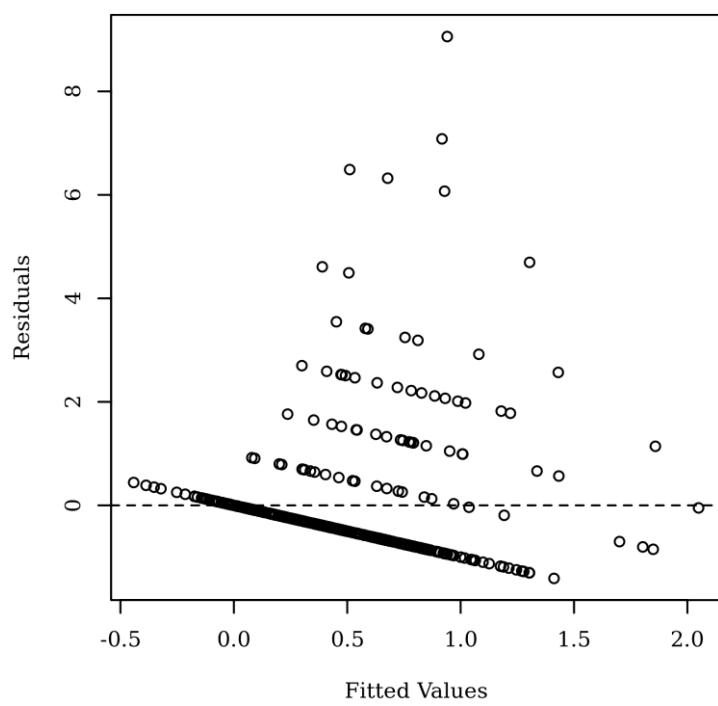


Figure 7.11.9.12. Residuals scatterplot testing homoscedasticity.

Table 7.11.9.7. Variance Inflation Factors for GNBE, GR, GNSE, Suffering, Positive Sharing, Emotional Attention, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, Harm, and In-group.

Variable	VIF
GNBE	1.81
GR	1.83
GNSE	1.94
Suffering	2.59
Positive Sharing	1.80
Emotional Attention	1.46
Feel for Others	1.64
Anger	2.41
Physical Aggression	2.20
Verbal Aggression	2.13
Hostility	1.45
Harm	1.74
In-group	1.18

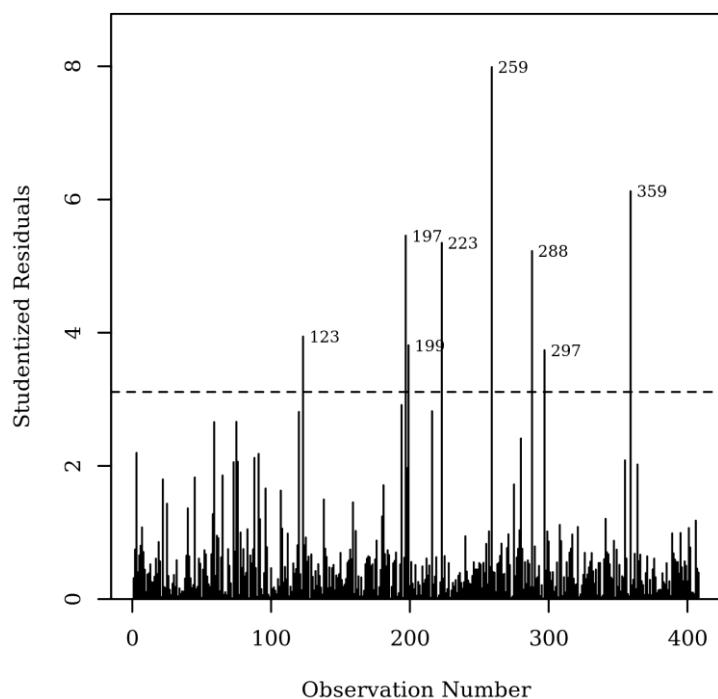


Figure 7.11.9.13. Studentised residuals plot for outlier detection.

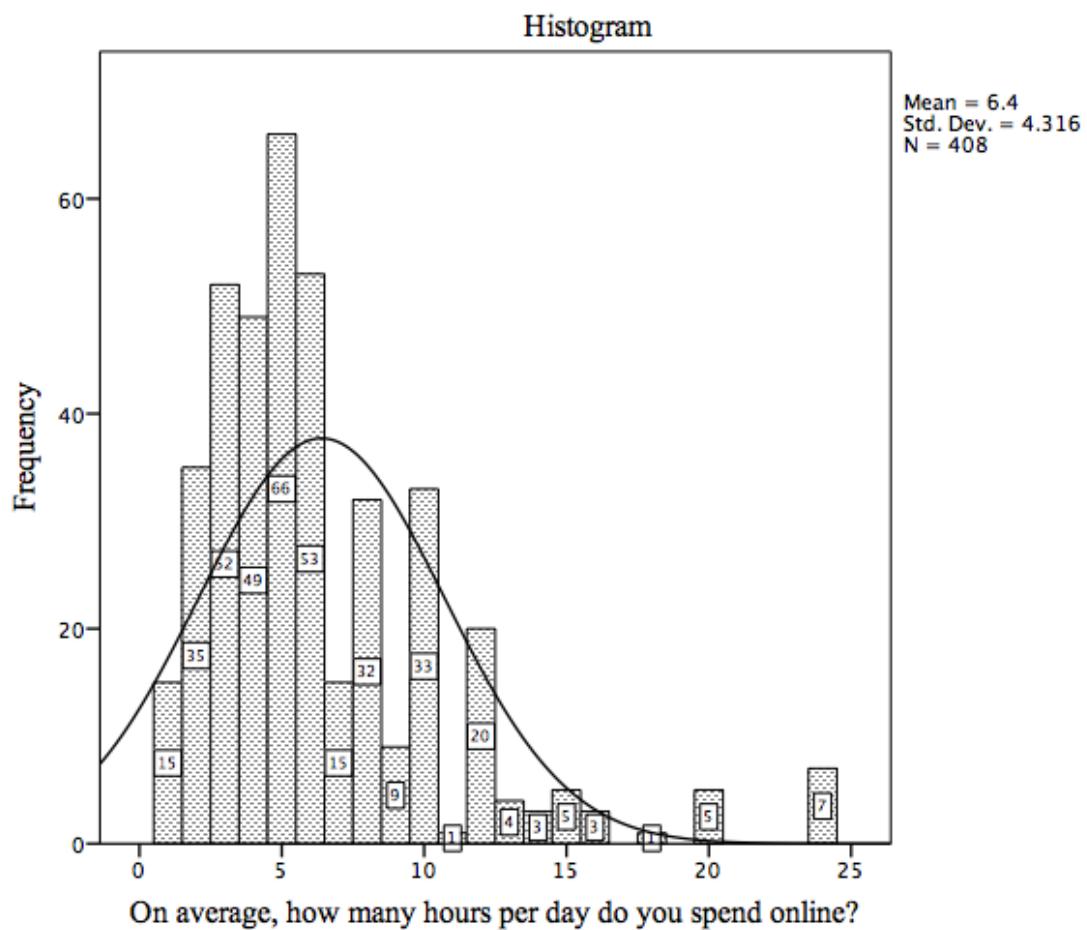


Figure 9.10.1. Hours spent online daily.

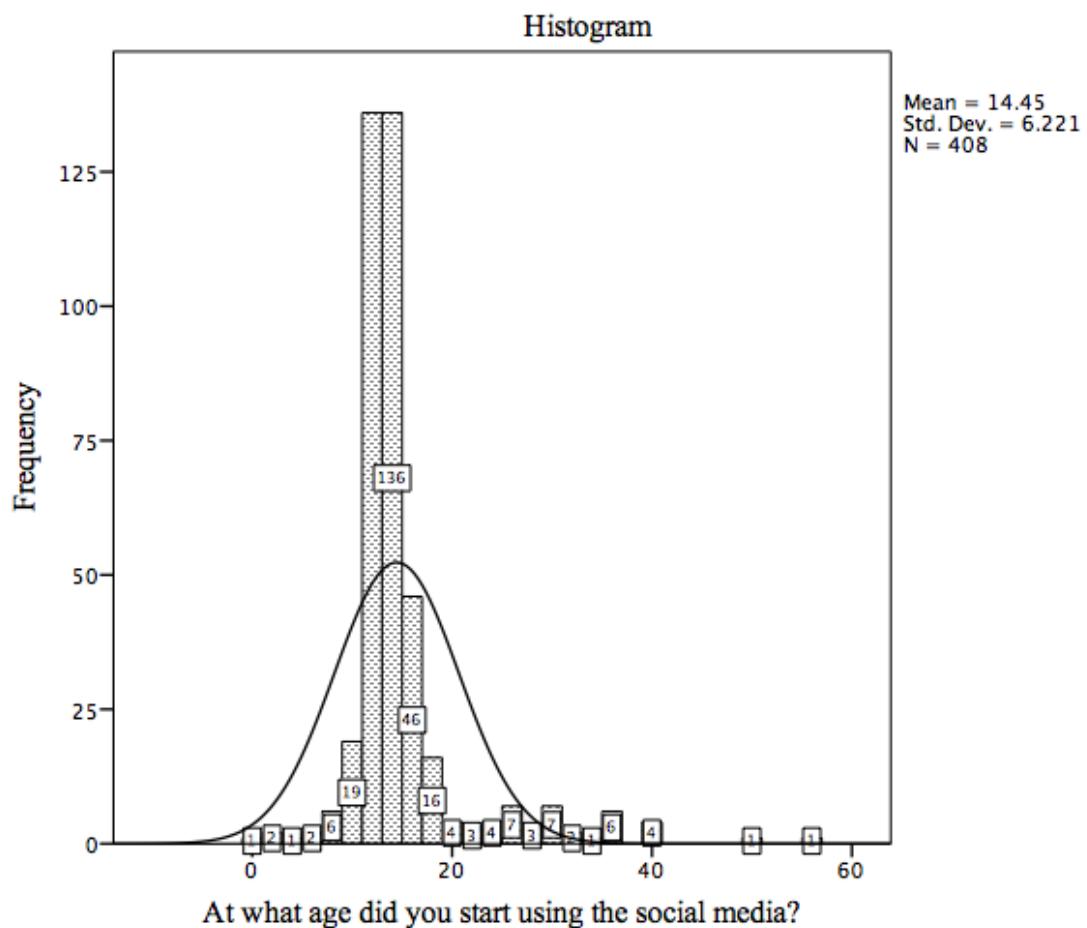
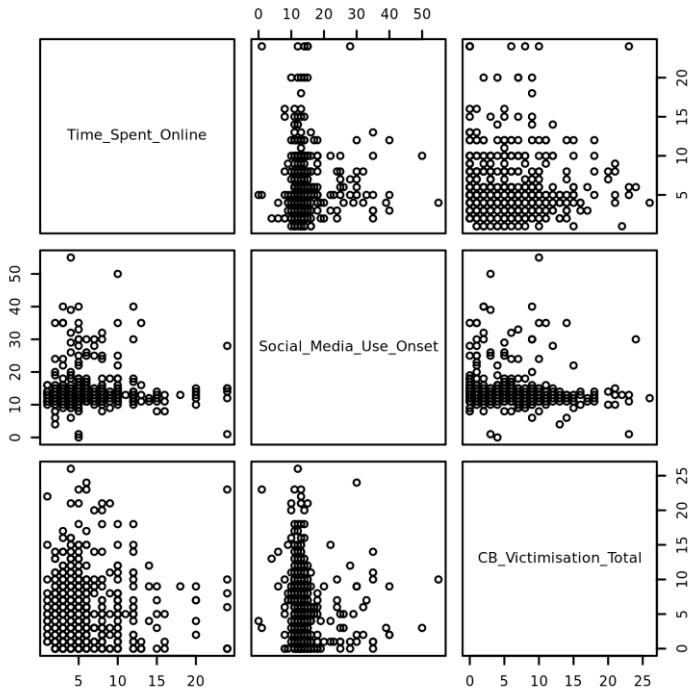


Figure 9.10.2. Onset of social media use.



*Figure 9.10.3.* Scatterplot matrix among time spent online, onset of social media use and CB victimisation.

Table 9.10.4. *Observed and Expected Frequencies*.

CB Perpetration occurrence	Online Violence Exposure		
	No	Sort of	Yes
No	281[271.25]	27[28.80]	71[78.96]
Sort of	6[8.59]	1[0.91]	5[2.50]
Yes	5[12.17]	3[1.29]	9[3.54]

*Note.*  $\chi^2(4) = 19.45$ ,  $p < .001$ . Values formatted as Observed[Expected].

Table 10.10.1. *Frequency Table for Nominal Variables*.

Variable	n	%
<b>CB Victimation Frequency</b>		
All the time	4	0.98
More than once	85	20.83
Once	48	11.76
Once a month	3	0.74
Once a week	6	1.47
Quite often	18	4.41
Missing	244	59.80

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 10.10.2. *Frequency Table for Nominal Variables.*

Variable	n	%
CB Victimisation “Made Fun of in Chat Room”		
A few times	35	8.58
Every day	2	0.49
Many times	12	2.94
Never	268	65.69
Once or twice	91	22.30
Missing	0	0.00
CB Victimisation “Email Known Sender Anger”		
A few times	17	4.17
Many times	8	1.96
Never	322	78.92
Once or twice	61	14.95
Missing	0	0.00
CB Victimisation “Email Unknown Sender Mad”		
A few times	10	2.45
Every day	1	0.25
Many times	2	0.49
Never	359	87.99
Once or twice	36	8.82
Missing	0	0.00
CB Victimisation “Facebook Post Uncomfortable”		
A few times	92	22.55
Every day	2	0.49
Many times	50	12.25
Never	137	33.58
Once or twice	127	31.13
Missing	0	0.00
CB Victimisation “Post Web Uncomfortable”		
A few times	55	13.48
Every day	2	0.49
Many times	32	7.84
Never	204	50.00
Once or twice	115	28.19
Missing	0	0.00
CB Victimisation “Message Upset Uncomfortable”		
A few times	78	19.12
Every day	2	0.49
Many times	55	13.48

Never	147	36.03
Once or twice	126	30.88
Missing	0	0.00
<b>CB Victimisation “Bullied While Online”</b>		
A few times	42	10.29
Every day	3	0.74
Many times	26	6.37
Never	249	61.03
Once or twice	88	21.57
Missing	0	0.00
<b>CB Victimisation “Fear Go Online”</b>		
A few times	28	6.86
Every day	3	0.74
Many times	11	2.70
Never	305	74.75
Once or twice	61	14.95
Missing	0	0.00
<b>CB Victimisation “Post Online Privacy Breach”</b>		
A few times	45	11.03
Every day	1	0.25
Many times	24	5.88
Never	205	50.25
Once or twice	133	32.60
Missing	0	0.00

*Note.* Due to rounding errors, percentages may not equal 100%.

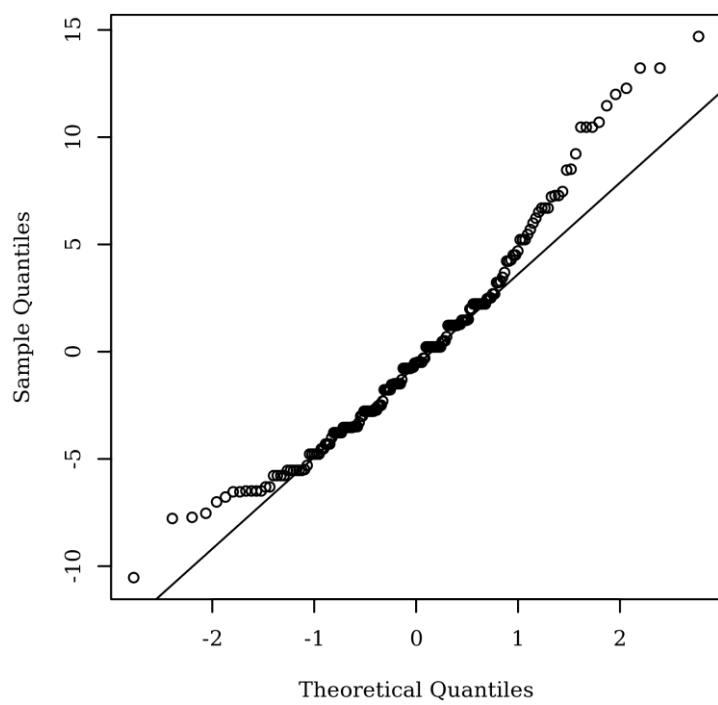


Figure 10.10.4. Q-Q scatterplot testing normality.

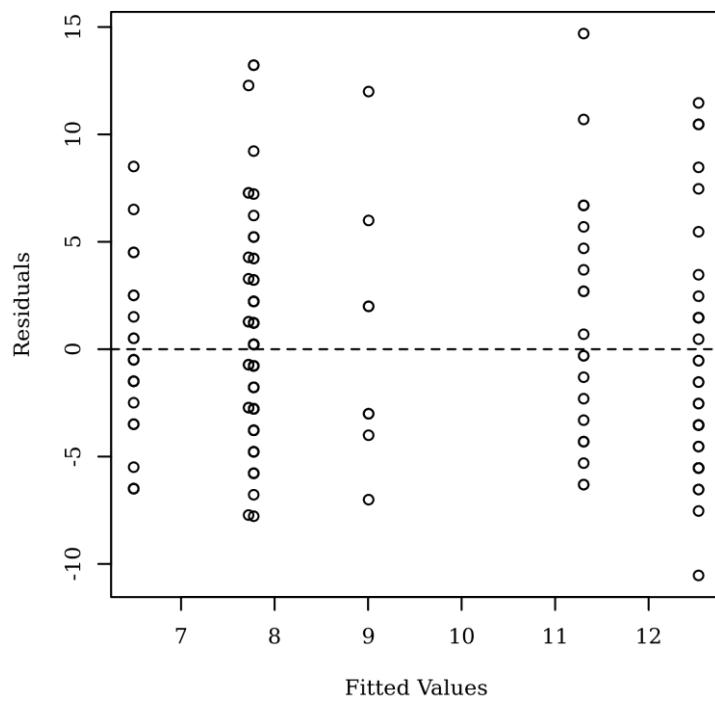


Figure 10.10.5. Residuals scatterplot testing homoscedasticity.

Table 10.10.8. *Variance Inflation Factors for CB Victimisation Other Means of Bullying and CB Victimization Social Media CB Perpetration Role.*

Variable	VIF
CB Victimization Other Means of Bullying	1.33
CB Victimization Social Media CB Perpetration Role	1.33

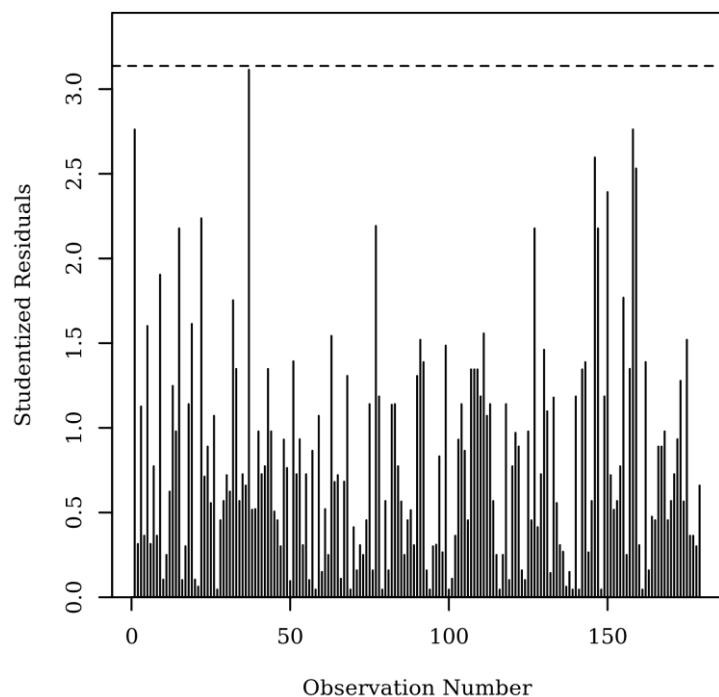


Figure 10.10.6. Studentised residuals plot for outlier detection.

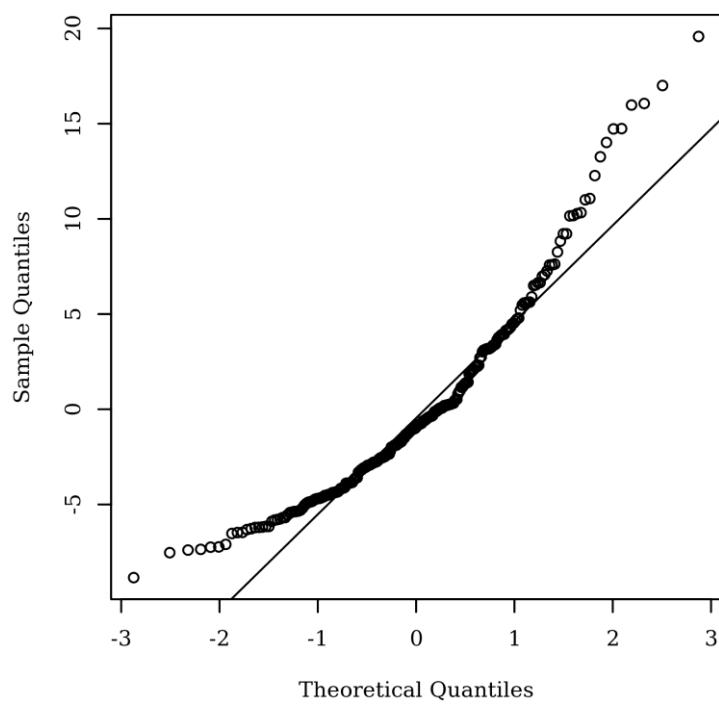


Figure 10.10.7. Q-Q scatterplot testing normality.

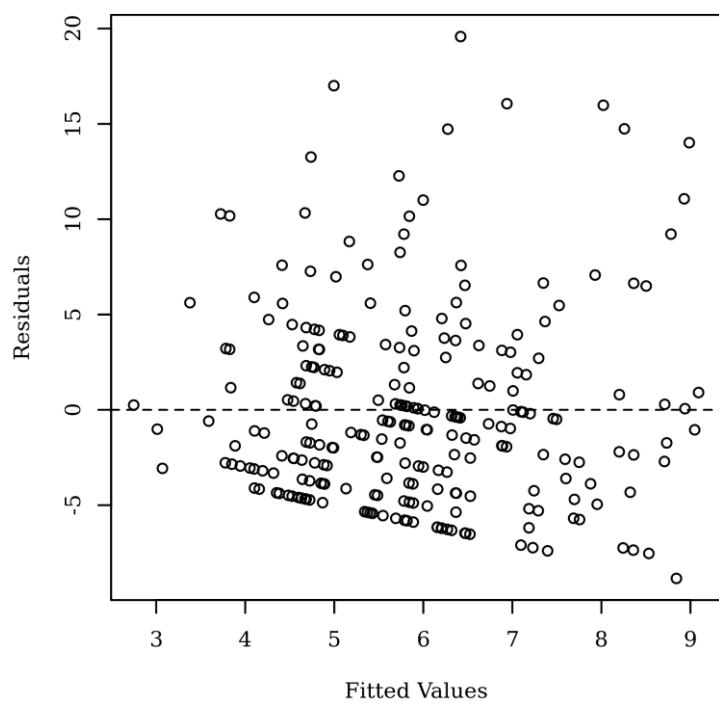


Figure 10.10.8. Residuals scatterplot testing homoscedasticity.

Table 10.10.10. *Variance Inflation Factors for Time Spent Online, Online Violence Exposure, Parental Monitoring Of Online Time Limit Use, Parents Set Rules For Internet Site Restriction, Internet Site Restriction Follow Rules, and Social Media Use Onset.*

Variable	VIF
Time Spent Online	1.01
Online Violence Exposure	1.07
Parental Monitoring Of Online Time Limit Use	1.30
Parents Set Rules For Internet Site Restriction	1.58
Internet Site Restriction Follow Rules	1.34
Social Media Use Onset	1.02

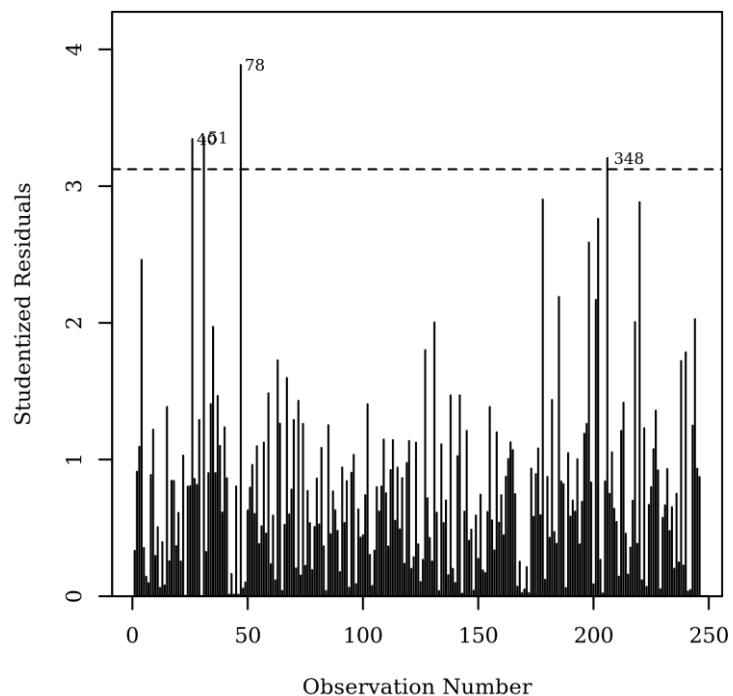


Figure 10.10.9. Studentised residuals plot for outlier detection.

Table 11.10.4. *Frequency Table for Nominal Variables.*

Variable	n	%
CB Perpetration “Post to Laugh”		
A few times	53	12.99
Every day	2	0.49
Many times	30	7.35
Never	235	57.60
Once or twice	88	21.57
Missing	0	0.00
CB Perpetration “Text to Anger or Annoy”		
A few times	32	7.84
Every day	1	0.25
Many times	7	1.72
Never	296	72.55
Once or twice	72	17.65
Missing	0	0.00
CB Perpetration “Email to Anger or Annoy”		
A few times	10	2.45
Every day	2	0.49
Many times	1	0.25
Never	380	93.14
Once or twice	15	3.68
Missing	0	0.00
CB Perpetration “Post Social Media to Anger or Annoy”		
A few times	12	2.94
Every day	1	0.25
Many times	5	1.23
Never	350	85.78
Once or twice	40	9.80
Missing	0	0.00
CB Perpetration “Photo Dissemination Without Permission”		
A few times	23	5.64
Many times	19	4.66
Never	291	71.32
Once or twice	75	18.38
Missing	0	0.00

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 12.3.1. *Frequency Table for Nominal Variables.*

Variable	n	%
CB Role Switch Perpetrator to Victim		
No	372	91.18
Sort of	8	1.96
Yes	27	6.62
Missing	1	0.25
CB Role Switch Frequency Perpetrator to victim		
1 time	11	2.70
2 times	11	2.70
3 times	6	1.47
4 times	4	0.98
5 times	1	0.25
6 and more	2	0.49
Missing	373	91.42
CB Role Switch Victim to Perpetrator		
No	344	84.31
Sort of	14	3.43
Yes	50	12.25
Missing	0	0.00
CB Role Switch Frequency Victim to Perpetrator		
1 time	17	4.17
2 times	22	5.39
3 times	8	1.96
4 times	4	0.98
5 times	6	1.47
6 and more	8	1.96
Missing	343	84.07

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 12.3.2. *Observed and Expected Frequencies.*

CB Perpetration occurrence	CB Victimisation occurrence		
	No	Sort of	Yes
No	245[237.80]	27[26.94]	107[114.26]
Sort of	4[7.53]	2[0.85]	6[3.62]
Yes	7[10.67]	0[1.21]	10[5.12]

*Note.*  $\chi^2(4) = 12.55$ ,  $p = .014$ . Values formatted as Observed [Expected].

Table 13.11.1. *Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	VIF
Age	1.07
Gender	1.08
Ethnic Group	4.89
Religion	4.82
Sexual orientation	1.26
Disabilities	1.58
Mental health	1.33
Physical health	1.40

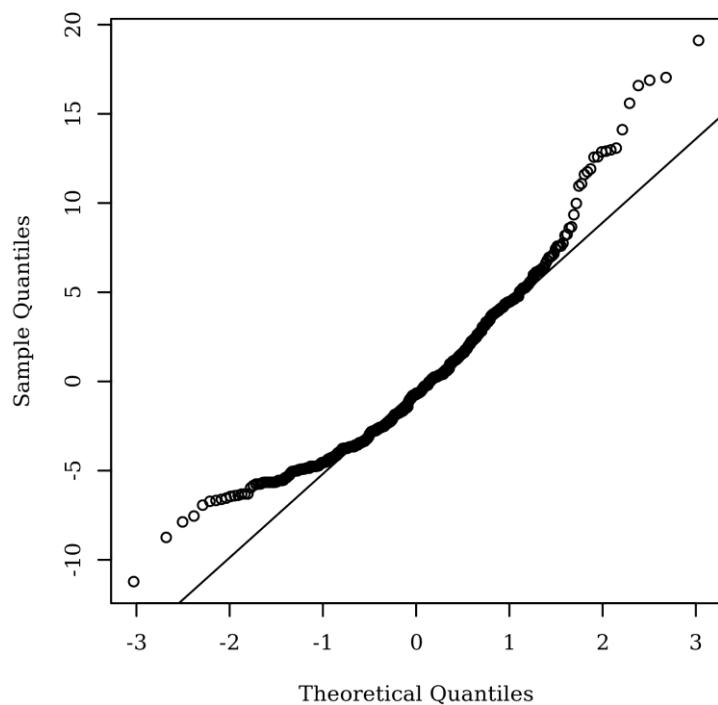
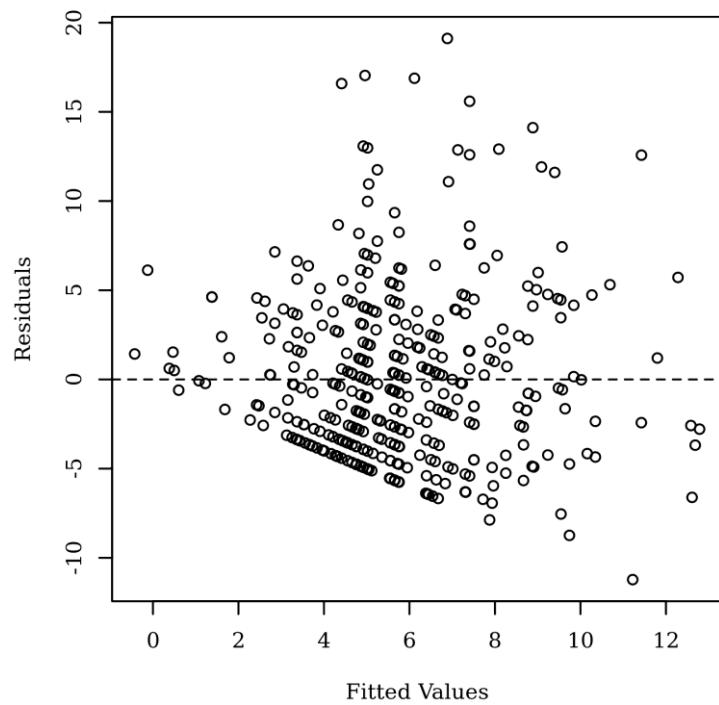


Figure 13.11.1. Q-Q scatterplot testing normality.



*Figure 13.11.2.* Residuals scatterplot testing homoscedasticity.

*Table 13.11.3. Variance Inflation Factors for Age, Gender, Ethnic Group, Religion, Sexual orientation, Disabilities, Mental health, and Physical health.*

Variable	VIF
Age	1.07
Gender	1.08
Ethnic Group	4.89
Religion	4.82
Sexual orientation	1.26
Disabilities	1.58
Mental health	1.33
Physical health	1.40

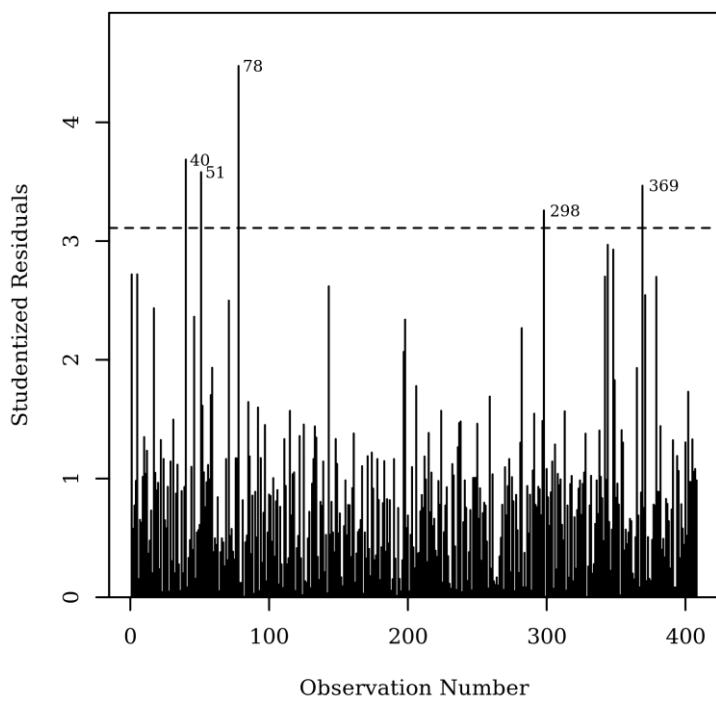


Figure 13.11.3. Studentised residuals plot for outlier detection.

Table 14.7.1. *Observed and Expected Frequencies*.

CB Victimisation occurrence	Sibling teasing	
	No	Yes
No	110[97.03]	108[120.97]
Sort of	11[12.02]	16[14.98]
Yes	37[48.96]	73[61.04]

Note.  $\chi^2(2) = 8.54$ ,  $p = .014$ . Values formatted as Observed [Expected].

Table 14.7.2a. *Frequency Table for Nominal Variables*.

Variable	n	%
Parental reaction to sibling teasing		
Ignored it	7	1.72
Discussed the event with us	35	8.58
It was a family joke, normal behaviour between siblings	9	2.21
More than one from the list	39	9.56
Punished my sibling	26	6.37
Set rules about teasing	19	4.66
Teased me as well	24	5.88
Told me to get over it	34	8.33
Missing	215	52.70

Note. Due to rounding errors, percentages may not equal 100%.

Table 14.7.2b. *Observed and Expected Frequencies.*

CB Perpetration occurrence	Ignored it	Discussed the event with us	Parental reaction to sibling teasing					
			It was a family joke, normal behaviour between siblings	More than one from the list	Punished my sibling	Set rules about teasing	Teased me as well	Told me to get over it
No	6[6.38]	33[31.92]	8[8.21]	37[35.56]	26[23.71]	15[17.33]	19[21.89]	32[31.01]
Sort of	1[0.22]	0[1.09]	1[0.28]	1[1.21]	0[0.81]	1[0.59]	0[0.75]	2[1.06]
Yes	0[0.40]	2[1.99]	0[0.51]	1[2.22]	0[1.48]	3[1.08]	5[1.37]	0[1.94]

Note.  $\chi^2(14) = 27.58, p = .016$ . Values formatted as Observed [Expected].

Table 14.7.3. *Observed and Expected Frequencies.*

CB Victimisation occurrence	Parents know friends		
	No	Sort of	Yes
No	10[11.83]	48[50.44]	183[178.73]
Sort of	5[1.37]	5[5.86]	18[20.76]
Yes	4[5.79]	28[24.70]	86[87.51]

Note.  $\chi^2(4) = 11.58, p = .021$ . Values formatted as Observed [Expected].

Table 14.7.4. *Observed and Expected Frequencies.*

CB Perpetration occurrence	Friends awareness			
	Everything that is going on in your life	Most of what is going on in your life	Only the serious things	They don't know anything about what is going on in your life
No	77[76.87]	235[231.53]	34[35.19]	5[7.41]
Sort of	2[2.41]	7[7.26]	2[1.10]	0[0.23]
Yes	4[3.72]	8[11.21]	2[1.70]	3[0.36]

Note.  $\chi^2(6) = 22.35, p = .001$ . Values formatted as Observed[Expected].

Table 14.7.5. *Observed and Expected Frequencies*.

CB Perpetration occurrence	Friends' support		
	No	Sort of	Yes
No	3[4.64]	57[56.58]	298[296.79]
Sort of	0[0.14]	1[1.74]	10[9.12]
Yes	2[0.22]	3[2.69]	12[14.09]

Note.  $\chi^2(4) = 15.86, p = .003$ . Values formatted as Observed [Expected].

Table 14.7.6. *Kruskal-Wallis Rank Sum Test for CB Victimisation intensity by Sibling teasing*.

Level	Mean Rank
No	165.74
Yes	187.83

Note.  $\chi^2(1) = 4.09, p = .043$ .



Figure 14.7.1. Ranked Values of CB Victimisation intensity by the levels of Sibling teasing.

Table 14.7.7. *Pairwise Comparisons for the Mean Ranks of CB Victimisation intensity by Levels of Sibling teasing.*

Comparison	Observed Difference	Critical Difference
No-Yes	22.09	21.48

Note. Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 14.7.8. *Kruskal-Wallis Rank Sum Test for CB Perpetration intensity by Sibling relationship.*

Level	Mean Rank
No	141.59
Sort of	181.71
Yes	193.44

Note.  $\chi^2(2) = 6.64, p = .036$ .

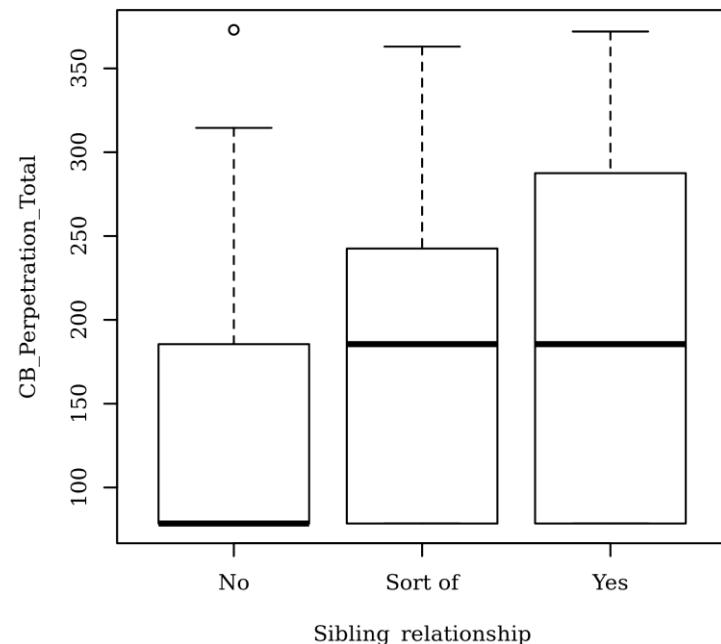


Figure 14.7.2. Ranked Values of CB Perpetration intensity by the levels of Sibling relationship.

Table 14.7.9. *Pairwise Comparisons for the Mean Ranks of CB Perpetration intensity by Levels of Sibling relationship.*

Comparison	Observed Difference	Critical Difference
No-Sort of	40.12	56.59
No-Yes	51.85	51.30
Sort of-Yes	11.73	32.79

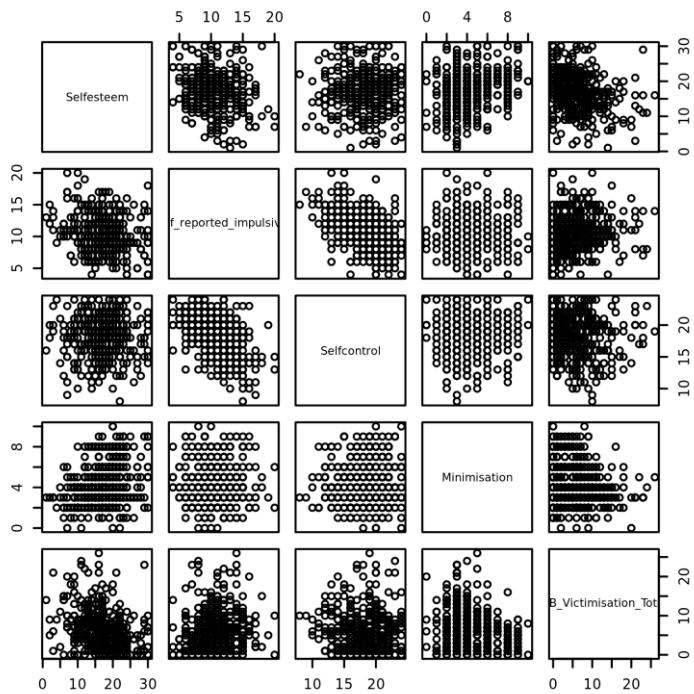
*Note.* Observed Differences > Critical Differences indicate significance at the  $p < .05$  level.

Table 14.7.10. *Variance Inflation Factors for Sibling teasing and Parents know friends.*

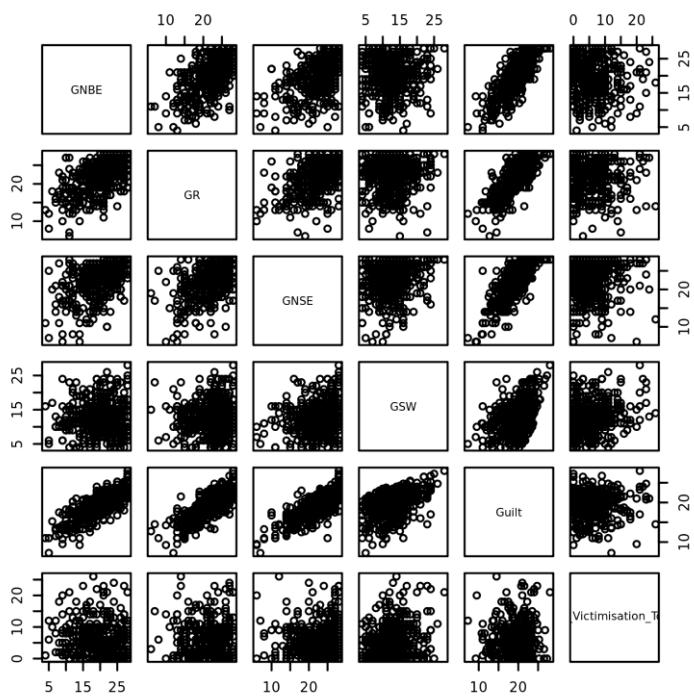
Variable	VIF
Sibling teasing	1.00
Parents know friends	1.00

Table 14.7.12. *Variance Inflation Factors for Sibling relationship, Parental reaction to sibling teasing, Friends awareness, and Friends' support.*

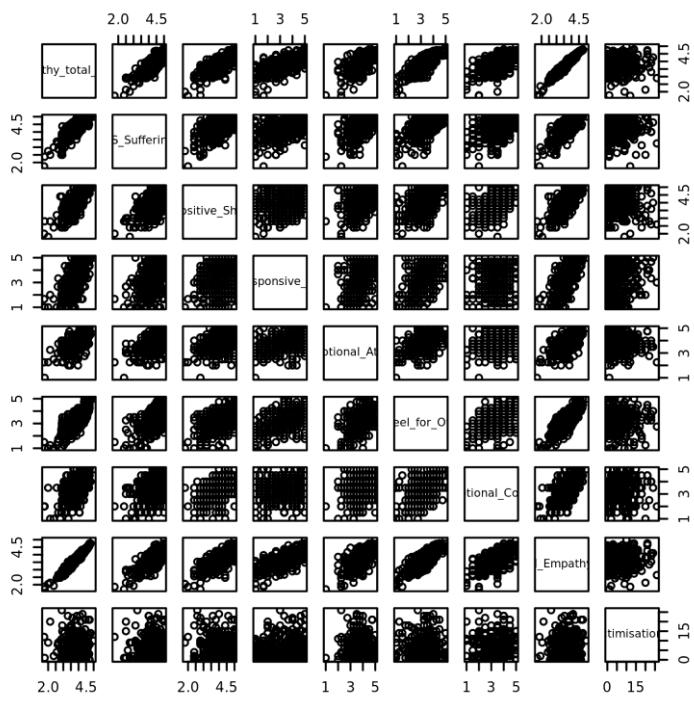
Variable	VIF
Sibling relationship	1.10
Parental reaction to sibling teasing	1.34
Friends awareness	1.49
Friends' support	1.43



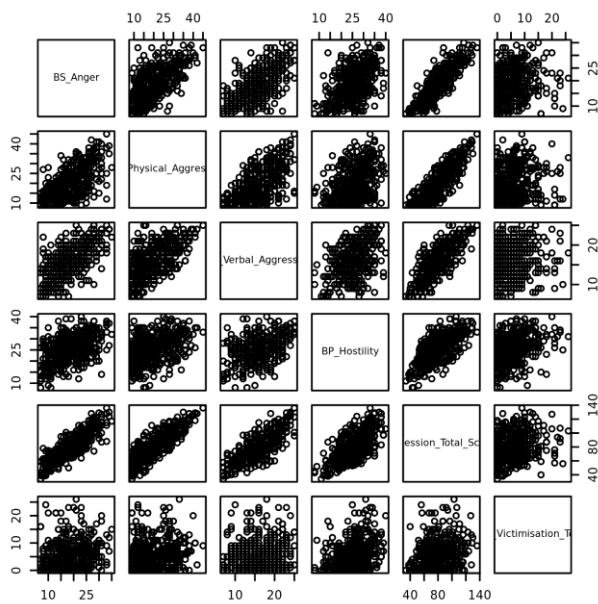
*Figure 15.11.1.* Scatterplot matrix among Self-esteem, Self-reported impulsivity, Self-control, Minimisation, and CB Victimisation intensity.



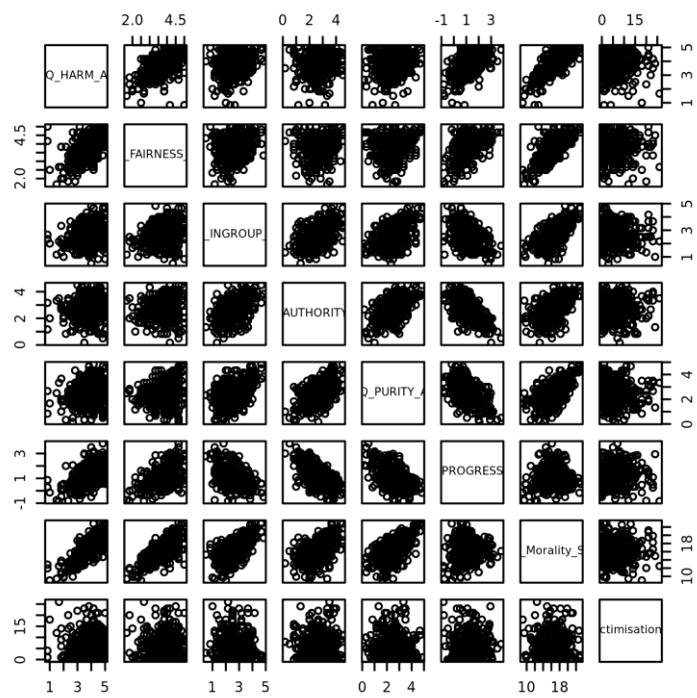
*Figure 15.11.2.* Scatterplot matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Victimisation intensity.



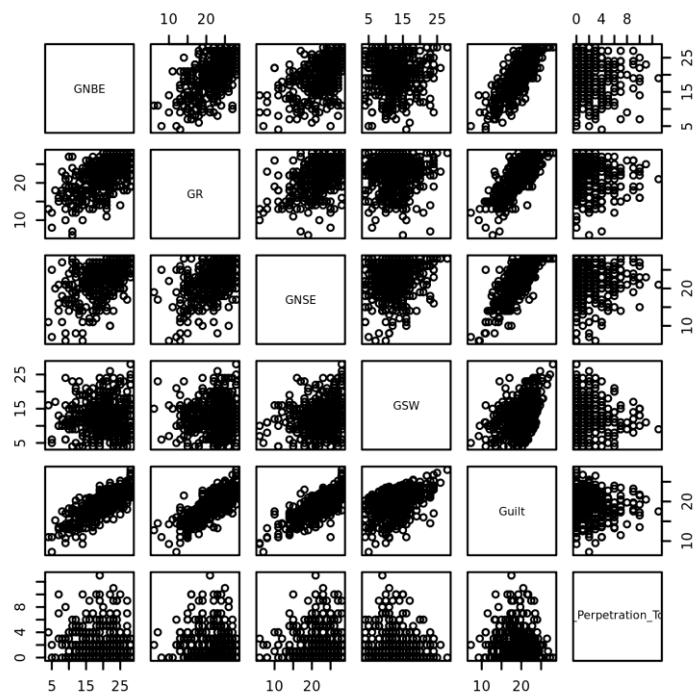
*Figure 15.11.3.* Scatterplot matrix among Empathy total score, Suffering, Positive Sharing, Responsive Crying, Emotional Attention, Feel for Others, Emotional Contagion, Empathy mean score, and CB Victimisation intensity.



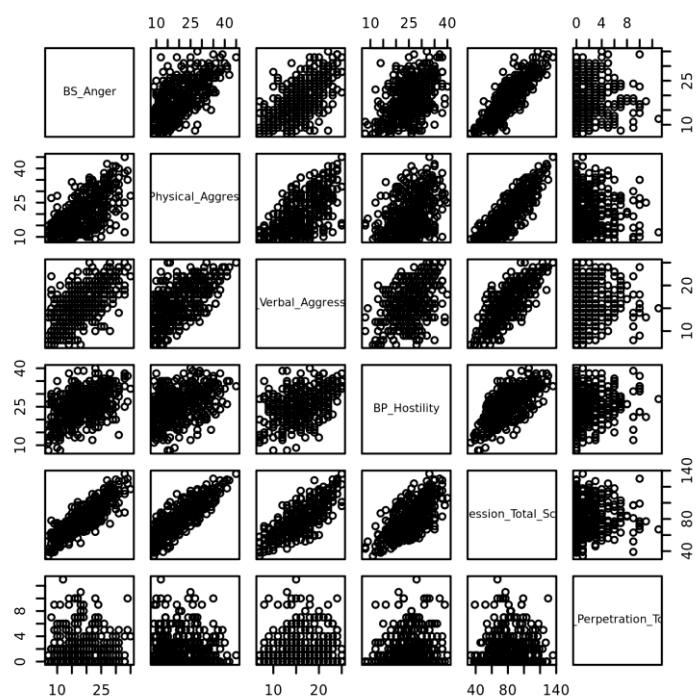
*Figure 15.11.4.* Scatterplot matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Victimization intensity.



*Figure 15.11.5.* Scatterplot matrix among Harm, Fairness, In-group, Authority, Purity, Progressivism, Morality, and CB Victimation intensity.



*Figure 15.11.6.* Scatterplot matrix among GNBE, GR, GNSE, GSW, Guilt, and CB Perpetration intensity.



*Figure 15.11.7.* Scatterplot matrix among Anger, Physical Aggression, Verbal Aggression, Hostility, Aggression, and CB Perpetration intensity.

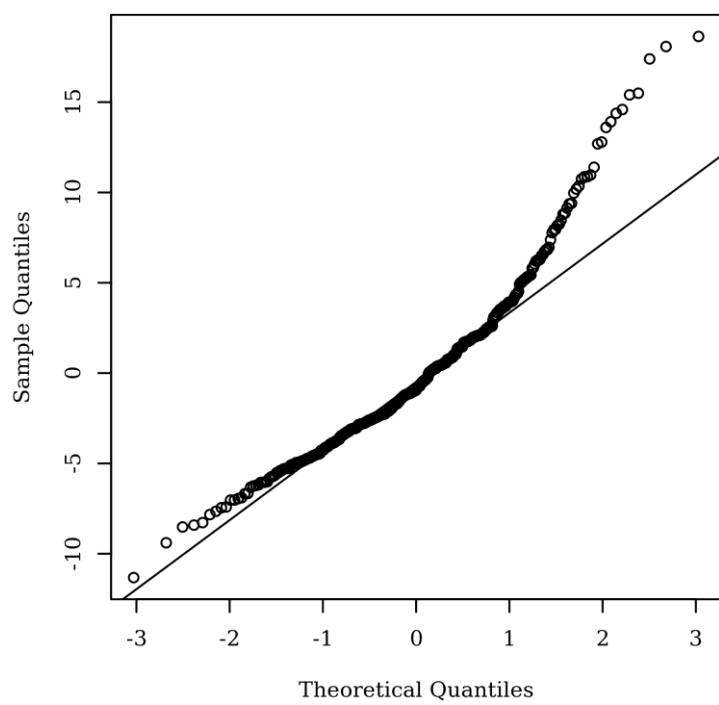


Figure 15.11.8. Q-Q scatterplot testing normality.

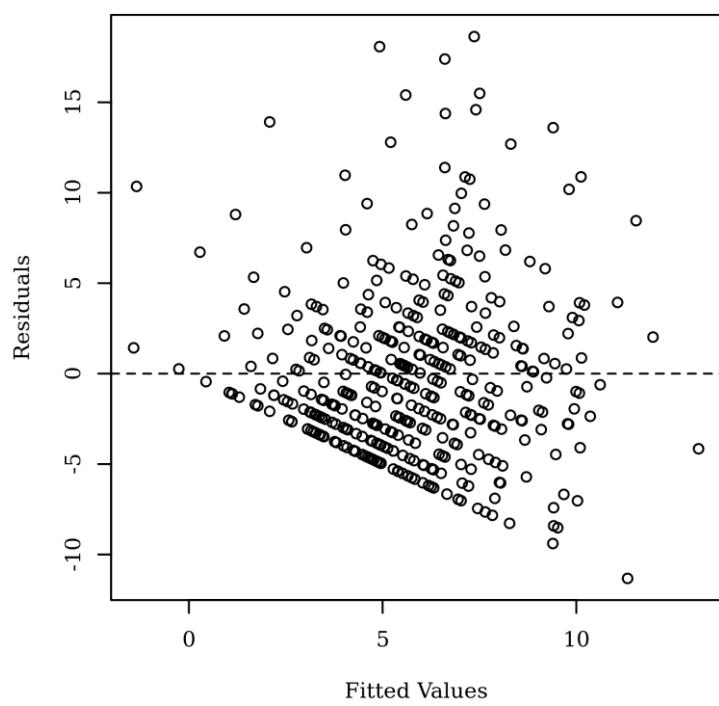


Figure 15.11.9. Residuals scatterplot testing homoscedasticity.

Table 15.11.9. Variance Inflation Factors for Self-esteem, Self-reported impulsivity, Self-control, Minimisation, Empathy mean score, and Aggression.

Variable	VIF
Self-esteem	1.20
Self-reported impulsivity	1.47
Self-control	2.24
Minimisation	1.19
Empathy mean score	1.15
Aggression	2.31

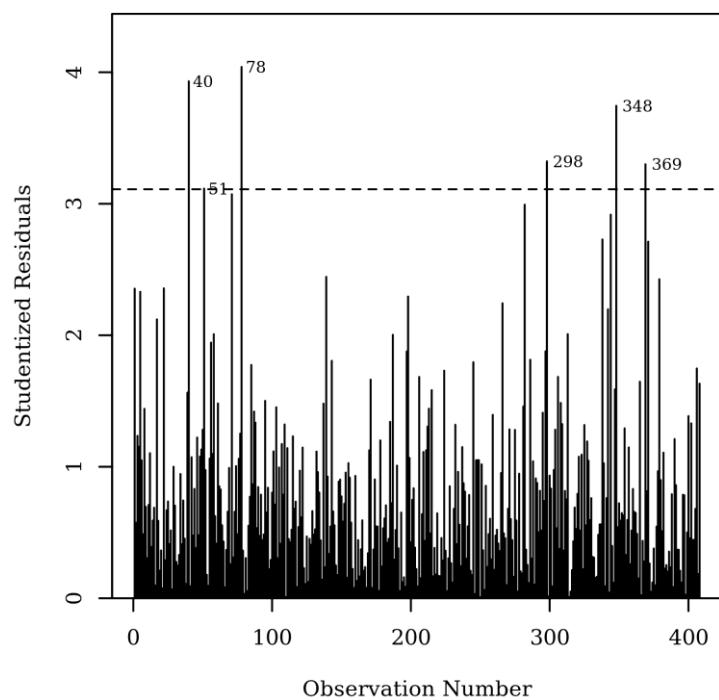


Figure 15.11.10. Studentised residuals plot for outlier detection.

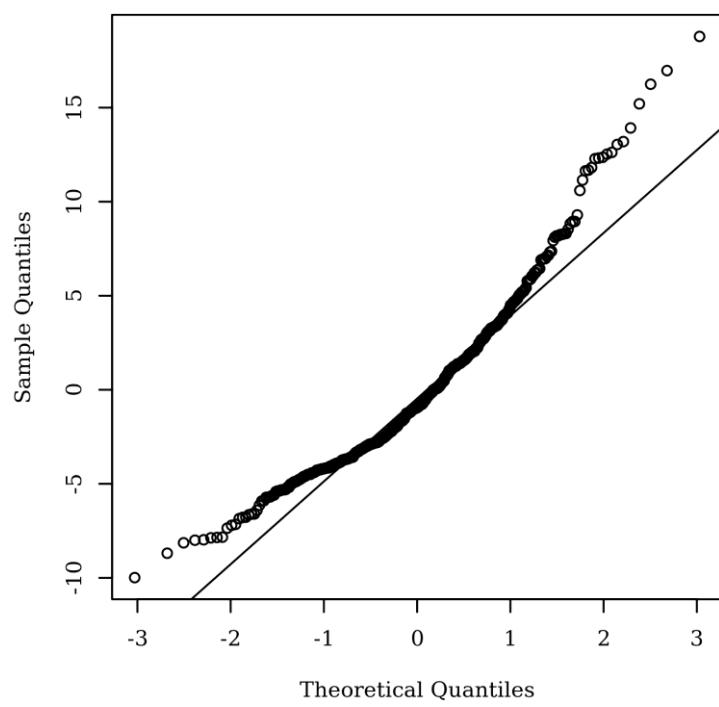


Figure 15.11.11. Q-Q scatterplot testing normality.

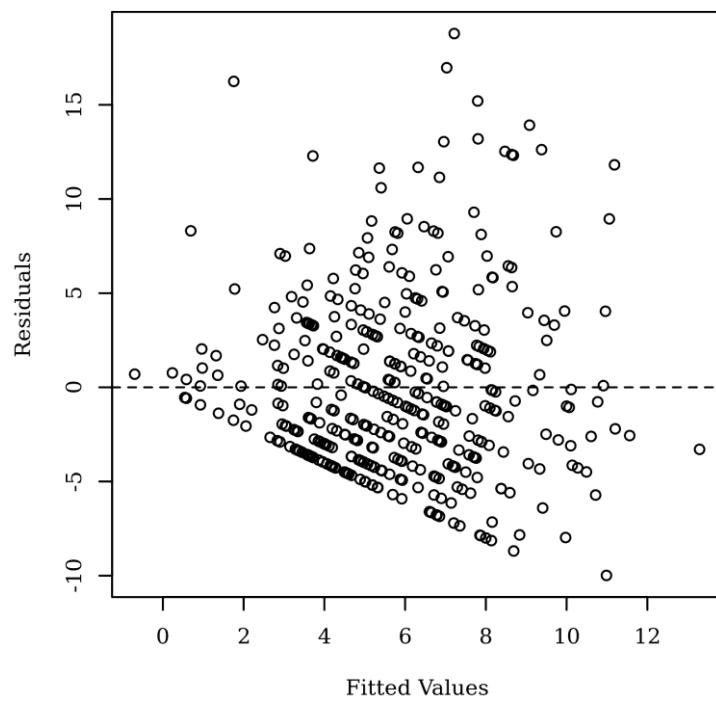


Figure 15.11.12. Residuals scatterplot testing homoscedasticity.

Table 15.11.11. Variance Inflation Factors for GNBE, GSW, Suffering, Responsive Crying, Feel for Others, Anger, Physical Aggression, Verbal Aggression, Hostility, and Progressivism.

Variable	VIF
GNBE	1.36
GSW	1.11
Suffering	1.75
Responsive Crying	1.51
Feel for Others	1.75
Anger	2.35
Physical Aggression	2.09
Verbal Aggression	2.12
Hostility	1.43
Progressivism	1.18

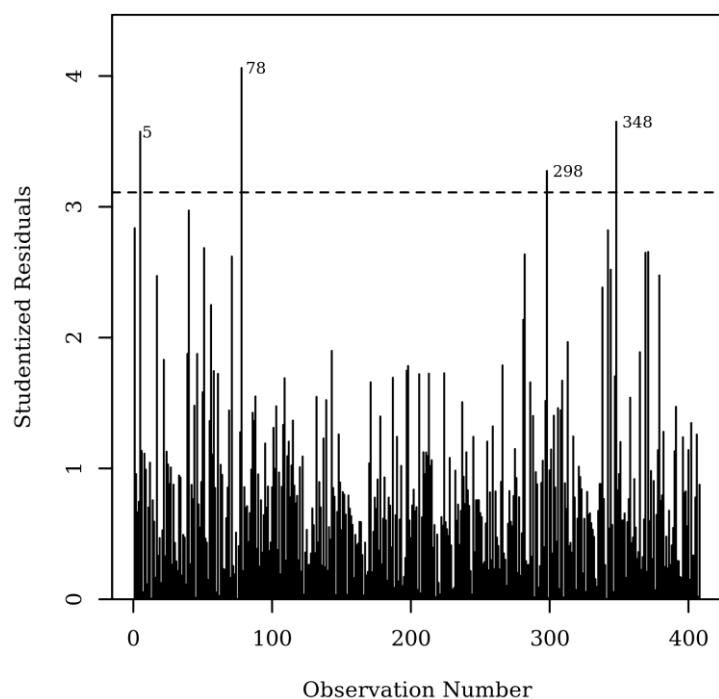


Figure 15.11.13. Studentised residuals plot for outlier detection.

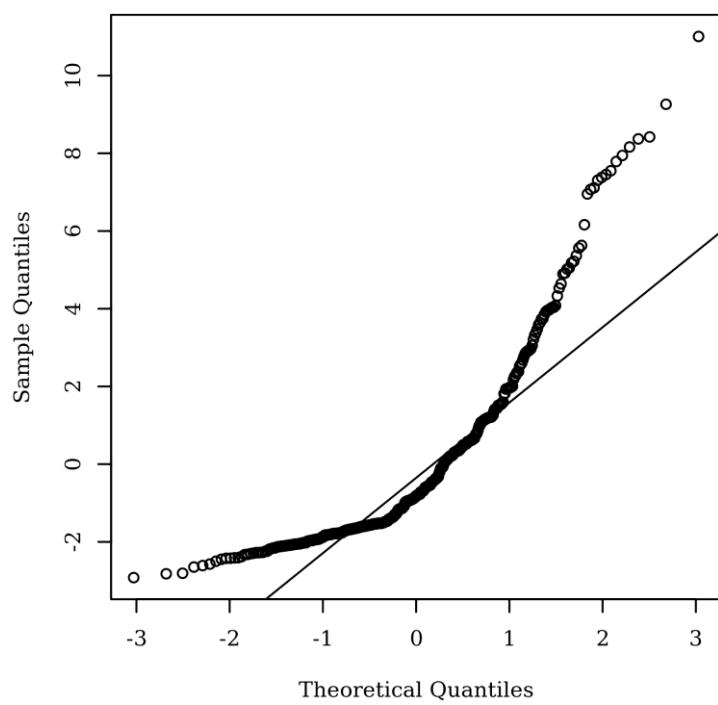


Figure 15.11.14. Q-Q scatterplot testing normality.

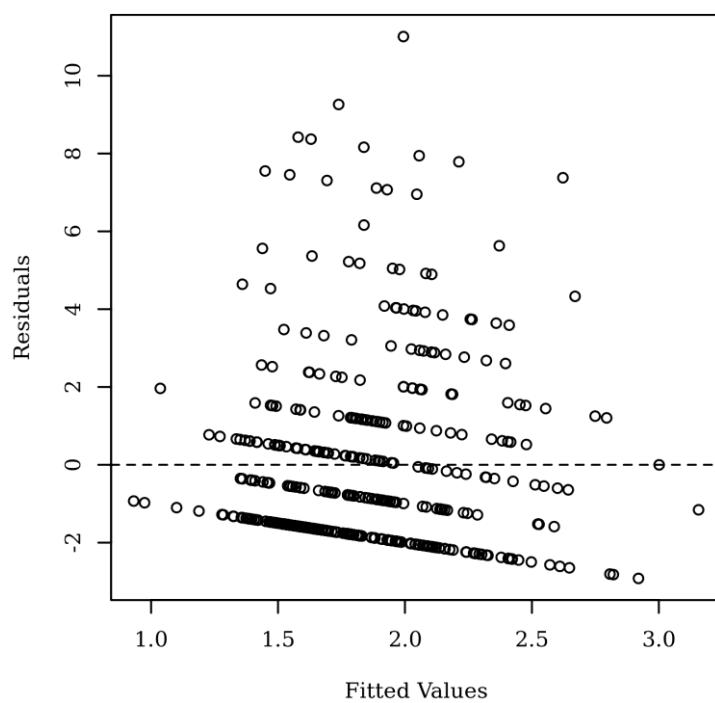


Figure 15.11.15. Residuals scatterplot testing homoscedasticity.

Table 15.11.13. Variance Inflation Factors for Guilt and Aggression.

Variable	VIF
Guilt	1.08
Aggression	1.08

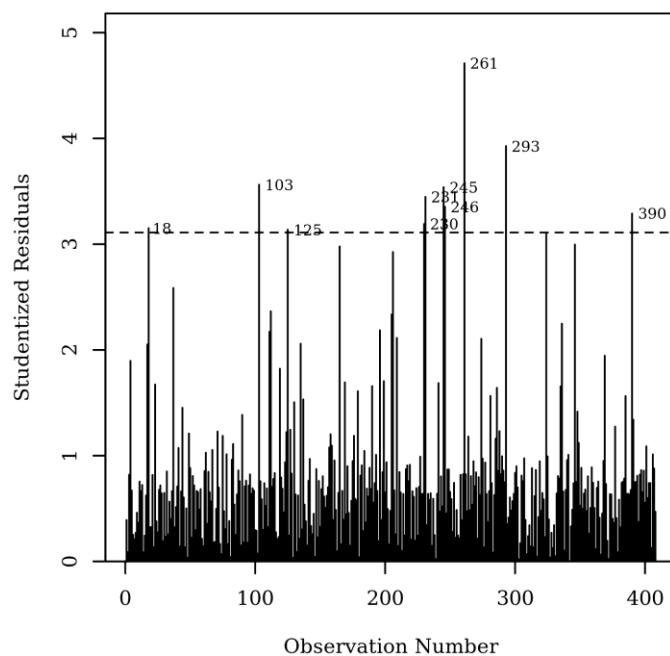


Figure 15.11.16. Studentised residuals plot for outlier detection.

Table 17.10.1. Frequency Table for Nominal Variables on Anti-bullying Education.

Variable	n	%
Anti-bullying Education Parents		
No	17	4.17
Sort of	36	8.82
Yes	354	86.76
Missing	1	0.25
Anti-bullying Education Parents Onset		
Always	21	5.15
Never	12	2.94
Preschool	200	49.02
Primary	159	38.97
Secondary	16	3.92
Missing	0	0.00
Anti-bullying Education School		
No	20	4.90
Sort of	24	5.88

Yes	364	89.22
Missing	0	0.00
Anti-bullying Education School Onset		
Always	16	3.92
Never	15	3.68
Preschool	108	26.47
Primary	213	52.21
Secondary	56	13.73
Missing	0	0.00
School Strict Anti-bullying Policy		
No	58	14.22
Sort of	94	23.04
Yes	256	62.75
Missing	0	0.00
School Effective Anti-bullying Policy		
No	119	29.17
Sort of	101	24.75
Yes	188	46.08
Missing	0	0.00
School Staff Anti-bullying Promotion		
No	93	22.79
Sort of	113	27.70
Yes	202	49.51
Missing	0	0.00
School Support Victim		
No	133	32.60
Sort of	78	19.12
Yes	197	48.28
Missing	0	0.00
School bully-victim discuss		
No	128	31.37
Sort of	98	24.02
Yes	182	44.61
Missing	0	0.00
School built resilience		
No	155	37.99
Sort of	121	29.66
Yes	132	32.35
Missing	0	0.00

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 17.10.2. *Frequency Table for Nominal Variables on School Response to Bullying.*

Variable	<i>n</i>	%
School expel bullies		
No	137	33.58
Sometimes	198	48.53
Yes	73	17.89
Missing	0	0.00
School staff advise		
No	66	16.18
Sort of	58	14.22
Yes	284	69.61
Missing	0	0.00
School advise to support victims		
No	66	16.18
Sort of	75	18.38
Yes	267	65.44
Missing	0	0.00
School advise to intervene		
No	107	26.23
Sort of	94	23.04
Yes	207	50.74
Missing	0	0.00
School well-informed/prepared		
No	126	30.88
Sort of	119	29.17
Yes	163	39.95
Missing	0	0.00

*Note.* Due to rounding errors, percentages may not equal 100%.

Table 18.1. *Summary of Findings and Comparison Between SB and CB (Descriptive, Frequencies and Percentages).*

Variables	M	SD	Min	Max	Mode	Frequencies	Percentages
Age	23	8	11	63			
Gender					Female	337	83
Country born					UK	339	83
Country live					UK	377	92
Ethnic Group					White	310	76
Religion					No religion	211	52
Still at school					Yes	363	89
Education level					University	351	86
Sexual orientation					Heterosexual	365	89
Work status					Yes	235	58
Disabilities					No	355	87
Mental health					No	284	70
Physical health					No	347	85
Relationship with parents					Yes	322	79
Parenting style					Permissive	292	72
Parental communication					Yes	233	57
Parents knowing what is happening to their children's lives					Yes	248	61
Parental support					Yes	284	70
Parental engagement					Yes	188	46
Parents knowing if children skipped school					Yes	146	36
Having siblings					Yes	369	90
Number of siblings	2	1.47	0	10			
Sibling relationship					Yes	264	65
Sibling support					Yes	213	52
Sibling teasing					Yes	197	48
Parents knowing of sibling teasing					Yes	193	47
Parental reaction to sibling teasing					Multiple ways	51	13
Having friends					Yes	369	90
Number of close friends	5	6.2	0	100			
Friends knowing what					Yes	250	61

is going on participants' lives				
Friends' support	Yes	320	78	
Parents knowing who friends are	Yes	287	70	
Devices with Internet access	Mobile	399	99	
Time spent online	6.40	4.32	1	24
Online violence exposure	No	290	72	
Types of online violence exposure	Play online violent games	66	61	
Time spent online restriction	No	311	77	
Particular sites restriction	No	279	69	
Children following Internet restriction rules	No	105	43	
Social media use onset	14.45	6.22	0	55
Types of social media use	Facebook	353	87	
Purpose of social media use	To talk to people	343	85	
Self-esteem	17.27	5.65	1	30
Impulsivity	10.5	2.94	4	20
Self-control	18.35	3.14	8	24
Guilt	19.34	3.32	7	28
GNBE Guilt- Negative- Behaviour- Evaluation	19.97	5.33	4	28
GR Guilt- Repair	21.81	4.23	6	28
GNSE Shame- Negative-Self- Evaluation	22.57	4.63	6	28
GSW Shame- Withdraw	13.00	4.67	4	28
Minimisation	4.32	2.05	0	10
Empathy total score	3.80	.49	1.73	5.00
Empathy general score	3.66	.51	1.70	5.00
Suffering	4.24	.51	1.75	5.00
Positive sharing	3.98	.62	1.80	5.00

Responsive crying	3.38	1.07	1.00	5.00
Emotional attention	3.79	.62	1.00	5.00
Feel for others	3.23	.75	1.00	5.00
Emotional contagion	3.37	.80	1.00	5.00
Aggression	79.75	19.82	43	136
Anger	18.56	6.36	7	35
Physical aggression	19.80	8.09	9	45
Verbal aggression	15.94	4.15	7	25
Hostility	25.45	5.99	8	40
Morality	16.46	2.49	9.03	23.06
Harm	3.72	.73	.83	5.00
Fairness	3.76	.63	1.67	5.00
In-group	2.65	.78	.50	4.83
Authority	2.68	.77	.17	4.50
Purity	2.48	.83	.17	4.83
Progressivism	1.13	.76	-.83	3.81
SB victimisation			Yes	246
CB victimisation			No	256
SB victimisation intensity	3	3	0	11
CB victimisation intensity	5.8	5.23	0	26
SB perpetration			No	328
CB perpetration			No	379
SB perpetration intensity	.49	1.28	0	10
CB perpetration intensity	1.86	2.42	0	13
SB Frequency of victimisation			At some point in their life	102
CB Victimation frequency			More than once	85
CB Perpetration frequency			Once	19
SB perpetration frequency			One or more times a month	59
Means of SB victimisation			Called me names	205
Means of CB victimisation			Spread rumours	75
Means of SB perpetration			Made fun of the victims	42
Means of CB			Spread	9
				31

<u>perpetration</u>	<u>rumours</u>		
Who SB victimised the most	Girls in the same class	179	72
Who CB victimised the victims most	Girls in my grade	78	51
Whom SB perpetrator victimised the most	Girls in my grade	38	49
Whom CB perpetrators targeted the most	Girls in my grade	16	52
Reasons of SB victimisation	Being fat	86	35
Reasons of CB victimisation by victims' perspective	Because we argued in other settings	73	46
Reasons of SB perpetration	Victims did not get along with others	18	24
Reasons of CB perpetration	Argued in other settings	35	45
Means to stop SB victimisation	When they left school	103	41
Reasons of CB victimisation stop	Stood up to the bullies	61	37
Reasons of SB perpetration stopping	Guilt	42	54
Reasons of CB perpetration stop	Guilt	29	35
Parents' awareness of SB victimisation	Yes	135	54
Parents' awareness of SB perpetration	No	33	42
SB victims protecting victims	Yes	156	63
SB perpetrators protecting other victims	Yes	54	68
Reasons of SB victims protecting victims	Because bullying is not right	141	78
Reasons of SB perpetrators protecting	I realised bullying was wrong	35	59

<u>victims</u>			
Success of SB victims when protecting victims	Yes	92	50
Success of SB perpetrators when protecting victims	Yes	20	34
SB victims expressing their feelings to the perpetrator	No	179	44
SB perpetrators' experience of victims expressing their feeling to them	No	47	12
Results of SB victims expressing their feelings to the bully	The bullying stopped	21	28
Results of SB perpetrators experiencing expression of feelings from the victim	I felt really bad for my actions	19	58
Ability to defend when SB victimised	Sort of	103	41
Victimisation at home	No	177	71
In which platform victims experienced the most CB victimisation	Facebook	112	74
In what platform CB perpetrators victimised the most	Facebook	19	63
Victimisation by the same CB perpetrator in other settings	No	126	31
CB perpetrating the same CB victim in other settings	No	139	34
Social media role for victims	No	80	20

(would the attack occur without the social media?)			
Social media role for CB perpetrators (would they still attack without the social media?)	No	112	27
Whether CB victims received help	No	84	21
Whether someone tried to stop CB perpetrators	No	80	20
Means of help CB victims received	Talked to me/support me	44	53
Ways of others trying to stop CB perpetrators	Talked to me	16	67
Success from help received for CB victims	Yes	38	9
Success of others when tried to stop CB perpetrators	No	13	3.19
Role switch from CB perpetrator to CB victim	Yes	35	100
Role switch from CB victim to CB perpetrator	No	88	58
Role switch from CB perpetrator to CB victim frequency	1-2 times	11	31
Role switch from CB victim to CB perpetrator frequency	2 times	22	5
Anti-bullying education from parents	Yes	354	87
Anti-bullying education from school/teachers	Yes	364	89
Onset of anti-	Preschool	200	49

<u>bullying</u>			
education from parents			
<u>Anti-bullying education from school teachers' onset</u>	Primary	213	52
<u>School support the victim</u>	Yes	197	48
<u>School staff trying to help the bully change his behaviour</u>	Yes	202	50
<u>School staff provide advice/inform about bullying</u>	Yes	284	70
<u>School advise students to support the victim</u>	Yes	267	65
<u>School advise students to intervene when bullying occurs</u>	Yes	207	51
<u>School have victim-bully discuss the event</u>	Yes	182	45
<u>School expel bullies</u>	Sometimes	198	49
<u>School promote resilience</u>	No	155	38
<u>Strict policy at school</u>	Yes	256	63
<u>Effective policy at school</u>	Yes	188	46
<u>School is well informed and prepared</u>	Yes	163	40

Table 18.2.1. *Observed and Expected Frequencies.*

		CB Victimisation	
SB Victimisation occurrence	No	Sort of	Yes
No	139[101.65]	11[11.51]	12[48.84]
Yes	117[154.35]	18[17.49]	111[74.16]

Note.  $\chi^2(2) = 68.89, p < .001$ . Values formatted as Observed [Expected].

Table 18.2.2. *Observed and Expected Frequencies.*

		CB perpetration occurrence	
SB victimisation occurrence	No	Sort of	Yes
No	157[150.49]	3[4.76]	2[6.75]
Yes	222[228.51]	9[7.24]	15[10.25]

Note.  $\chi^2(2) = 7.10, p = .029$ . Values formatted as Observed [Expected].

Table 18.2.3. *Observed and Expected Frequencies.*

		CB perpetration occurrence	
SB perpetration occurrence	No	Sort of	Yes
No	319[304.69]	6[9.65]	3[13.67]
Sort of	30[33.44]	3[1.06]	3[1.50]
Yes	30[40.87]	3[1.29]	11[1.83]

Note.  $\chi^2(4) = 66.76, p < .001$ . Values formatted as Observed [Expected]

Table 18.3.1. Significant correlations and differences of SB victimisation occurrence (SBVO), SB perpetration occurrence (SBPO), SB victimisation intensity (SBVI), SB perpetration intensity (SBPI), CB victimisation occurrence (CBVO), CB perpetration occurrence (CBPO), CB victimisation intensity (CBVI), and CB perpetration intensity (CBPI), with the independent variables.

Variables	SBVO	CBVO	SBVI	CBVI	SBPO	CBPO	SBPI	CBPI
SBVO		$\chi^2(2) =$ 68.89, $p < .001$						
CBVO					$\chi^2(4) =$ 12.55, $p = .014$			
SBPO		$\chi^2(2) =$ 11.72, $p = .003$						
CBPO		$\chi^2(2) =$ 7.10, $p = .029$			$\chi^2(4) =$ 66.76, $p < .001$			
SBPI			$r_p = .12,$ $p = .012$					
CBVI			$r_p = .416,$ $p < .01$					
Parents' awareness of SBV		$\chi^2(3) =$ 391.85 $p = .001$						
Victimisation at home		$\chi^2(1) =$ 44.28, $p < .001$						
Parents' awareness of SBP					$\chi^2(6) =$ 4.6, $p < .001$			
Friendly relationship with parents		$\chi^2(2) =$ 12.42, $p = .002$	K.W: $\chi^2(2)$ = 18.98, $p < .001$ , Yes-No		$\chi^2(4) =$ 9.84, $p = .043$		K.W: $\chi^2(2)$ = 6.88, $p = .032$ , Yes-No	
Parental support		$\chi^2(2) =$ 10.70, $p = .005$	K.W: $\chi^2(2)$ = 9.95, $p = .007$ , Sort of-Yes					
Parenting style			K.W: $\chi^2(3)$ = 13.80, $p = .003$ , Permissive-Uninvolved					
Having siblings					$\chi^2(2) =$ 7.36, $p = .025$			
Friendly sibling relationship				K.W: $\chi^2(2)$ = 6.64, $p = .036$ , No-Yes			K.W: $\chi^2(2)$ = 6.64, $p = .036$ , No-Yes	
Sibling teasing	$\chi^2(1) =$ 7.33, $p = .007$	$\chi^2(2) =$ 8.54, $p = .014$	K.W: $\chi^2(1)$ = 4.94, $p = .026$ , No-Yes	K.W: $\chi^2(1)$ = 4.09, $p = .043$ , No-Yes				
Sibling support			K.W: $\chi^2(2)$ = 7.62, $p = .022$ , No-Yes					
Parental reaction to sibling teasing			K.W: $\chi^2(7)$ = 14.26, $p = .047$ , Ignored it - family joke, normal behaviour between siblings			$\chi^2(14) =$ 27.58, $p = .016$		
Friends knowing what is going on in					$\chi^2(6) =$ 16.49, $p = .011$	$\chi^2(6) =$ 22.35, $p = .001$		

perpetrators' lives		
Friends' support		$\chi^2(4) = 15.86,$ $p = .003$
Parents know children' friends	$\chi^2(4) = 11.58,$ $p = .021$	
Empathy	$r_s = 0.10,$ $p = .036$	$r_p = -0.15,$ $p = .002$
Emotional contagion	$r_p = -0.10,$ $p = .049$	
Suffering	$r_s = 0.10,$ $p = .036$	$r_p = -0.18,$ $p < .001$
Emotional attention		$r_p = -0.16,$ $p = .002$
Feel for others	$r_s = 0.13,$ $p = .007$	$r_p = -0.18,$ $p < .001$
Responsive crying	$r_p = 0.14,$ $p = .004$	
Positive sharing		$r_s = -0.10,$ $p = .037$
Self-esteem	$r_p = -0.24,$ $p < .001$	$r_p = -0.33,$ $p < .001$
Aggression	$r_p = 0.13,$ $p = .010$	$r_p = 0.21,$ $p < .001$
Hostility	$r_p = 0.23,$ $p < .001$	$r_s = 0.12,$ $p = .019$
Physical aggression		$r_p = 0.20,$ $p < .001$
Verbal aggression	$r_p = 0.17,$ $p < .001$	$r_p = 0.19,$ $p < .001$
Anger	$r_p = 0.17,$ $p < .001$	$r_p = 0.18,$ $p < .001$
Impulsivity	$r_p = 0.11,$ $p = .033$	$r_p = 0.14,$ $p = .004$
Self-control	$r_p = -0.10,$ $p = .041$	$r_p = -0.19,$ $p < .001$
Guilt	$r_p = 0.11,$ $p = .024$	$r_p = -0.19,$ $p < .001$
GNSE	$r_p = 0.12,$ $p = .014$	$r_p = -0.15,$ $p = .003$
GSW	$r_p = 0.13,$ $p = .007$	$r_p = 0.20,$ $p < .001$
GNBE		$r_p = -0.15,$ $p = .003$
GR		$r_p = -0.15,$ $p = .002$
Morality		$r_p = -0.13,$ $p = .011$
Purity	$r_p = -0.12,$ $p = .018$	
Progressivism	$r_s = 0.10,$ $p = .040$	$r_s = 0.12,$ $p = .016$
Harm		$r_p = -0.19,$ $p < .001$
In-group		$r_s = -0.11,$ $p = .031$
Minimisation	$r_p = -0.14,$ $p = .006$	$r_p = -0.22,$ $p < .001$
Onset of social media use		$r_s = -0.12,$ $p = .016$
Online violence exposure		$\chi^2(4) = 19.45,$ $p < .001$

Table 108. Summative and comparative findings from the regression models.

Variables	SBVO	CBVO	SBVI	CBVI	SBPO	CBPO	SBPI	CBPI
CBVO						Yes: $B = 1.19$ , $\chi^2 = 5.48$ , $p = .019$ , increase by 227.10%		
CBPO		$(\chi^2 (4) = 12.58, p = .014, B = 1.19, \chi^2 = 5.48, p = .019)$ , increase by 227.10%						
Atheism	$B = 0.72$ , OR = 2.06, $p = .004$ , increase by 106%	$B = 0.66, \chi^2 = 5.14, p = .023$ , increase by 93.50%	$B = 0.82, t(389) = 2.36, p = .019$ , increase by 0.82 units	$t(389) = -3.14$ , $t(389) = -2.28, p = .023$ , decrease by 3.14 units	Muslim: $B = -3.14$ , $t(389) = -2.28, p = .023$ , decrease by 3.14 units			
Age		$B = -0.05, \chi^2 = 6.18, p = .013$ , decrease by 4.61%	$B = -0.10, t(389) = 3.21, p = .001$ , decrease by 0.10 units	$t(389) = 11.53, p < .001$ , increase by 5.97%	$B = 0.06, \chi^2 = 11.53, p < .001$ , increase by 5.97%	$B = 0.02, t(389) = 2.10, p = .036$ , increase by 0.02 units		
Ethnicity			Middle-eastern: $B = -5.19$ , $t(389) = -2.23, p = .027$ , decrease by 5.19 units. White: $B = -2.97$ , $t(389) = -2.22, p = .027$ , decrease by 2.97 units					
Male		$B = -0.73, \chi^2 = 3.99, p = .046$ , decrease by 51.77%	$B = -1.39, t(389) = 2.10, p = .037$ , decrease by 1.39 units	$B = 1.63, \chi^2 = 17.26, p < .001$ , increase by 412.91%	$B = 0.60, t(389) = 3.48, p < .001$ , increase by 0.60 units			
Friendly relationship with parents	$B = -1.14$ , OR = 0.32, $p = .001$ , decrease by 68%	Yes category: $B = -2.29$ , $t(171) = 2.98, p = .003$ , decrease by 2.29 units	No category: $B = 1.68, \chi^2 = 5.54, p = .019$ , increase (Sort of) by 439.01%					
Having siblings				$B = -1.19, \chi^2 = 6.55, p = .010$ , one unit increase in having siblings decreases the Sort of category by 69.63%				
Sibling teasing	$B = 0.69$ , OR = 1.99,	Yes: $B = 0.67, \chi^2 =$						

	$p = .003$ , increase by 99%.	$7.21, p =$ .007, increase by 95.10%	
Friends knowing what is going on in perpetrator s lives			$B = 2.43, \chi^2$ $= 8.07, p =$ .005, They don't know anything about what is going on in my life increases SB perpetratio n occurrence by 1037.96%
Parents know their children's friends	Sort of: $B$ $= -1.48, \chi^2$ $= 4.09, p =$ .043, decrease by 77.30%. Yes: $B = -$ $1.70, \chi^2 =$ $7.61, p =$ .006, decrease by 81.81%		
Empathy		$B = 1.07,$ $t(401) =$ 2.17, $p =$ .030, increase by 1.07 units	
Responsive crying		$B = 0.73,$ $t(397) =$ 2.71, $p =$ .007, increase by 0.73 units	
Self- esteem	$B = -0.11,$ $t(403) = -$ 3.72, $p <$ .001, decrease by 0.11 units	$B = -0.21,$ $t(401) = -$ 4.64, $p <$ .001, decrease by 0.21 units	
Self- control		$B = 0.27,$ $t(401) =$ 2.40, $p =$ .017, increase by 0.27 units	
Aggression		$B = 0.08,$ $t(401) =$ 4.69, $p <$ .001, increase by 0.08 units	
Hostility	$B = 0.10,$ $t(400) =$ 3.80, $p <$ .001, increase by 0.10 units	$B = 0.24,$ $t(397) =$ 5.10, $p <$ .001, increase by 0.24 units	
Guilt			$B = -0.10,$ $t(405) = -$ 2.62, $p =$ .009, decrease by 0.10 units

GNBE	$B = -0.15$ , $t(397) = -2.97, p = .003$ , decrease by 0.15 units
GSW	$B = 0.13$ , $t(397) = 2.47, p = .014$ , increase by 0.13 units
Purity	$B = -0.51$ , $t(400) = -2.29, p = .022$ , decrease by 0.51 units
Minimisation	$B = -0.28$ , $t(401) = -2.26, p = .024$ , decrease by 0.28 units
Perception of social media role in CB	Yes: $B = 4.81, t(175) = 4.57, p < .001$ , increase by 4.81 units
Online violence exposure	Yes: $B = 2.57, t(238) = 3.17, p = .002$ , increase by 2.57 units

## Appendix C

# Bullying & Cyber bullying

\*Required

### **Project Information**

Please read this part to understand the purpose of this survey! You should know that if you decide to complete this survey, you are making a very important contribution and you are a very important part in the attempt to understand and tackle bullying as well as help those who bully others to understand the consequences. The survey takes approximately 35 minutes to one hour depending on your pace, but you can take as many breaks as you wish, as long you don't close the browser, lose Internet connection or turn off your computer, laptop, tablet, smartphone. (If you are a participant recruited from the SONA system you must leave your student ID number at the end of the survey under the briefing note in order to get the credits; if in any case you forget to add your university id number there is no alternative way to match your response and credits cannot be claimed).

### **Project Information**

Can you help us please?

---

You are being invited to take part in a survey that explores the protective and risk factors in school bullying and cyber bullying. Before you decide to complete the survey, it is important that you understand why the research is being done and what it will involve. Please take time to read the following information carefully and email the researcher if you have any questions, or if anything is not clear and you would like more information about the survey.

What is the study about?

The purpose of this study is to explore the way that various individual aspects play a role in peoples' behaviour and decision to either engage in various bullying acts or desist from such actions? In addition the survey measures the rates in school bullying and cyber bullying. The main target of the survey is to assist with the findings in the reduction of school bullying and cyber bullying and to contribute in creating a safer environment in schools for students and a safer online environment for Internet users.

Why I have been approached?

You have been asked to participate because you fit the criteria of the survey (age 16 years old or older, a student of sixth form and over, and/or to remember your school, college and/or university experience, if you are not in education presently).

#### Do I have to take part?

It is your decision whether or not you take part. If you decide to take part you will be asked to electronically sign a consent form in the next section of the questionnaire by ticking the appropriate boxes next to the statements presented, and you will be free to withdraw at any time and without giving a reason. However, it will be much appreciated if you complete all the questions.

#### What will I need to do?

If you agree to take part in the research, you will be asked to answer a series of questions; some of which are open ended and some you will just have to tick the boxes next to the questions. At all times the researcher will be available by email to assist with any questions and provide guidance regarding the questionnaire.

#### Will my identity be disclosed?

NO. Everything you report in the questionnaire will be kept STRICTLY CONFIDENTIAL and any information you may disclose will NOT be shared with anyone apart from the University of Huddersfield research team. Your identity will not be revealed and the questionnaires are to be completed anonymously.

#### What will happen to the information?

All information collected from you during this survey will be kept secure and there is NO identifying material, thus ensuring your anonymity. It is anticipated that the research may, at some point, be published in a journal or report. However, should this happen, no one will be able to identify you (or anyone else you tell us about).

#### Who can I contact for further information on the survey?

If you require further information about the research, please contact the researcher at:

Name: Calli Tzani-Pepelasi  
E-mail: [Kalliopi.Tzani-Pepelasis@hud.ac.uk](mailto:Kalliopi.Tzani-Pepelasis@hud.ac.uk)  
PhD Supervisor: Dr. Maria Ioannou

Thank you for your time and your cooperation

## Consent

It is important that you read, understand and sign the consent form by checking the boxes next to each statement. Your contribution to this research is entirely voluntary and you are not obliged in any way to participate, if you require any further details please contact the researcher. You are not required to print your name or sign. Checking the boxes next to the statements is considered a signature and agreement to the statements and this survey should be ONLY completed anonymously.

#### 1. I consent to taking part in it \*

*Tick all that apply.*

YES

**2. I understand that I have the right to withdraw from the research at any time without giving any reason \***

*Tick all that apply.*

YES

**3. I understand that after I submit my answers, I have no longer the right to withdraw the data from the study, as data/answers are anonymous \***

*Tick all that apply.*

YES

**4. I understand that the information collected will be kept securely for a period of 10 years at the University of Huddersfield \***

*Tick all that apply.*

YES

**5. I understand that no person other than the researcher/s and facilitator/s will have access to the information provided \***

*Tick all that apply.*

YES

**6. I understand that my identity will be protected and the questionnaires are to be completed anonymously \***

*Tick all that apply.*

YES

**7. For SONA participants only. I understand that I must add my university id number at the end of the survey and if I fail to add it I cannot claim the credits. If you are NOT a SONA participant please choose N/A \***

*Tick all that apply.*

YES

N/A

## About You

In this part we are interested in knowing general information about you. This part consists 32 questions which are mainly multiple choice, and on average you need 4 minutes to complete this section.

**8. 1. How old are you? \***

---

**9. 2. Are you a \***

*Mark only one oval.*

Female

Male

**10. 3. In which country you were born? \***

---

**11. 4. In which country do you live? \***

---

**12. 5. What is your ethnic group? \***

If you don't know, it's not listed or you don't want to say, please select "other"

*Mark only one oval.*

White

Mixed / Multiple ethnic groups

Asian / Asian British

Black / African / Caribbean / Black British

Other: \_\_\_\_\_

**13. 6. What is your religion? \***

*Mark only one oval.*

- Christian (including Church of England, Catholic, Protestant and all other Christian denominations)
- Muslim
- Jewish
- Hindu
- Buddhist
- Sikh
- No religion
- Other: \_\_\_\_\_

**14. 7. Are you still at school/College/University? If NO, please select N/A up to question 9. \***

*Mark only one oval.*

- Yes
- No

**15. 8. If yes, what level? \***

*Mark only one oval.*

- Secondary
- College
- University
- N/A
- Other: \_\_\_\_\_

**16. 9. Are you \***

*Mark only one oval.*

- Heterosexual
- Bisexual
- Homosexual
- Prefer not to say

**17. 10. Would you say that you have a friendly relationship with your parents (or stepparents)? (if you are older than 18 years old, please think of that age when you answer questions 10 to 28). \***

*Mark only one oval.*

- Yes
- No
- Kind of (Yes, but it could be improved)

**18. 11. Would you identify your parents as \***

*Mark only one oval.*

- Authoritarian (establishing rules that you must follow without exceptions)
- Permissive (lenient but support you and set rules when you are in trouble)
- Uninvolved (leave the rules up to you and let you solve your own problems)
- Other: \_\_\_\_\_

**19. 12. Do you discuss with your parents any difficulties that you might face? \***

*Mark only one oval.*

- Yes
- No
- Only when I am in big trouble

**20. 13. Would you say that your parents know \***

*Mark only one oval.*

- Everything that is going on in your life
- Most of what is going on in your life
- Only the serious things
- They don't know anything about what is going on in your life

**21. 14. When you are in trouble or face a difficulty, regardless of what that might be, do you feel that your parents are supportive? \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes, but in a more relaxed way)

**22. 15. Do you engage in any activities (e.g. going to the cinema, restaurants, trips) with your parents? \***

*Mark only one oval.*

- Yes
- No
- Sometimes

**23. 16. If you ever skipped school, did your parents find out? \***

*Mark only one oval.*

- Yes
- No
- Not applicable

**24. 17. Do you have any brothers (step) or sisters (step)? If NO, please select or type N/A up to question 24 \***

*Mark only one oval.*

- Yes  
 No

**25. 18. If yes, how many brothers or sisters do you have? \***

---

**26. 19. Would you say you have a friendly relationship with your brothers/sisters? \***

*Mark only one oval.*

- Yes  
 No  
 Sort of (Yes but it could be improved)  
 N/A

**27. 20. Do you feel that your brothers/sisters (step) support you when you are in need of support? \***

*Mark only one oval.*

- Yes  
 No  
 Sort of (Yes but they could support me more)  
 N/A

**28. 21. Do your brothers/sisters tease you (with good intentions and/or bad intentions) about your appearance (or other reasons)? If NO, please select N/A up to question no 24. \***

*Mark only one oval.*

- Yes  
 No  
 N/A

**29. 22. If yes, were your parents aware that your brothers/sisters teased you? \***

*Mark only one oval.*

- Yes
- No
- N/A

**30. 23. If yes how did your parents respond? \***

*Tick all that apply.*

- Punished my brother/sister
- Discussed the event with us
- Set rules about teasing
- Told me to get over it
- Teased me as well
- More than one from the list
- N/A
- Other: \_\_\_\_\_

**31. 24. Do you have any friends (online friends e.g. Facebook excluded)? If NO, please select or type N/A up to question 29. \***

*Mark only one oval.*

- Yes
- No

**32. 25. How many of them would you consider close friends (please state a number)? \***

\_\_\_\_\_

**33. 26. Would you say that your close friends know \***

*Mark only one oval.*

- Everything that is going on in your life
- Most of what is going on in your life
- Only the serious things
- They don't know anything about what is going on in your life
- N/A

**34. 27. Do you feel that your friends are supportive? \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but they could support me more)
- N/A

**35. 28. Do your parents know who your friends are? \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but they don't know them so well)
- N/A

**36. 29. Do you work? \***

*Mark only one oval.*

- Yes
- No
- Volunteer

**37. 30. Do you suffer from any disabilities (e.g. learning difficulties and/or other)? \***

*Mark only one oval.*

- Yes
- No
- I don't want to say

**38. 31. Have you ever been diagnosed for a mental disorder (e.g. OCD, depression, etc.)? \***

*Mark only one oval.*

- Yes
- No
- I don't want to say

**39. 32. Do you suffer from any physical health problems? \***

*Mark only one oval.*

- Yes
- No
- I don't want to say

## About your personality

In this section there are 10 statements dealing with your general feelings about yourself. You only have to check if you Agree, Strongly agree, Disagree or Strongly disagree. This section requires on average 1 minute to complete.

**40. 1. On the whole, I am satisfied with myself. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**41. 2. At times, I think I am no good at all. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**42. 3. I feel that I have a number of good qualities. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly Disagree

**43. 4. I am able to do things as well as most other people. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**44. 5. I feel I do not have much to be proud of. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**45. 6. I certainly feel useless at times. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**46. 7. I feel that I'm a person of worth, at least on an equal level with others. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**47. 8. I wish I could have more respect for myself. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**48. 9. All in all, I tend to feel that I am a failure. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**49. 10. I take a positive attitude toward myself. \***

*Mark only one oval.*

- Strongly agree
- Agree
- Disagree
- Strongly disagree

**A little bit about how you act in general**

How often would you make the following statements? There are only 4 multiple questions in this section.  
Average time to complete 30 seconds.

**50. 1. I have a hard time sitting still. \***

*Mark only one oval.*

- Never
- Seldom
- Sometimes
- Often
- Always

**51. 2. I start things but I have a hard time finishing them. \***

*Mark only one oval.*

- Never
- Seldom
- Sometimes
- Often
- Always

**52. 3. I do things without thinking. \***

*Mark only one oval.*

- Never
- Seldom
- Sometimes
- Often
- Always

**53. 4. I need to use a lot of self-control to keep out of trouble. \***

*Mark only one oval.*

- Never
- Seldom
- Sometimes
- Often
- Always

## A little more about your personality 1

Please rate the following statements. There are 6 multiple questions in this section. Average time to complete 30 seconds.

**54. 1. Sometimes you have to physically fight to get what you want. \***

*Mark only one oval.*

- Very true
- Somewhat true
- Somewhat false
- Very false

**55. 2. I get mad easily. \***

*Mark only one oval.*

- Very true
- Somewhat true
- Somewhat false
- Very false

**56. 3. I do whatever I feel like doing. \***

*Mark only one oval.*

- Very true
- Somewhat true
- Somewhat false
- Very false

**57. 4. When I am mad I yell at people. \***

*Mark only one oval.*

- Very true
- Somewhat true
- Somewhat false
- Very false

**58. 5. Sometimes I break things on purpose. \***

*Mark only one oval.*

- Very true
- Somewhat true
- Somewhat false
- Very false

**59. 6. If I feel like it, I hit people. \***

*Mark only one oval.*

- Very true
- Somewhat true
- Somewhat false
- Very false

## A little bit more about your personality 2

In this part you will read about situations that people are likely to encounter in day-to-day life, followed by common reactions to those situations. As you read each scenario, try to imagine yourself in that situation. Then indicate the likelihood that you would react in the way described. There are 17 multiple choice questions in this section. Average time to complete 4 minutes.

**60. 1. After realising you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**61. 2. You are privately informed that you are the only one in your group that did not make the honour society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**62. 3. You rip an article out of a journal in the library and take it with you. Your teacher discovers what you did and tells the librarian and your entire class. What is the likelihood that this would make you feel like a bad person? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**63. 4. After making a big mistake on an important project at work in which people were depending on you, your boss criticizes you in front of your co-workers. What is the likelihood that you would feign sickness and leave work? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**64. 5. You reveal a friend's secret, though your friend never finds out. What is the likelihood that your failure to keep the secret would lead you to exert extra effort to keep secrets in the future?**

*\**

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**65. 6. You give a bad presentation at work. Afterwards your boss tells your co-workers it was your fault that your company lost the contract. What is the likelihood that you would feel incompetent? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**66. 7. A friend tells you that you brag about yourself a great deal. What is the likelihood that you would stop spending time with that friend? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**67. 8. Your home is very messy and unexpected guests knock on your door and invite themselves in. What is the likelihood that you would avoid the guests until they leave? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**68. 9. You secretly commit a petty crime. What is the likelihood that you would feel remorse about breaking the law? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**69. 10. You successfully exaggerate your damages in a lawsuit. Months later, your lies are discovered and you are charged with perjury. What is the likelihood that you would think you are a despicable human being? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**70. 11. You strongly defend a point of view in a discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**71. 12. You take office supplies home for personal use and are caught by your boss. What is the likelihood that this would lead you to quit your job? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**72. 13. You make a mistake at work and find out a co-worker is blamed for the error. Later, your co-worker confronts you about your mistake. What is the likelihood that you would feel like a coward? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**73. 14. At a friend's housewarming party, you spill your drink on their new cream- colored carpet. You cover the stain with a chair so that nobody notices your mess. What is the likelihood that you would feel that the way you acted was pathetic? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**74. 15. While discussing a heated subject with friends, you suddenly realize you are shouting though nobody seems to notice. What is the likelihood that you would try to act more considerately toward your friends? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**75. 16. You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

**76. 17. Out of frustration, you break the photocopier at work or school. Nobody is around and you leave without telling anyone. What is the likelihood you would feel bad about the way you acted? \***

*Mark only one oval.*

- Very unlikely
- Unlikely
- Slightly unlikely
- About 50% likely
- Slightly likely
- Likely
- Very likely

### **A little bit more about your personality 3**

Make your answers as true FOR YOU as you can. There are 10 statements in this section. Average time to complete 1 minute.

**77. 1. I don't worry ahead of time about problems that are probably going to happen. \***

*Mark only one oval.*

- Not like me
- Like me

**78. 2. I feel that things are as bad as they seem to others. \***

*Mark only one oval.*

- Not like me
- Like me

**79. 3. When I get angry, I try to hide my feelings. \***

*Mark only one oval.*

- Not like me
- Like me

**80. 4. I feel that problems have a way of taking care of themselves. \***

*Mark only one oval.*

- Not like me
- Like me

**81. 5. I have to be very sick to see a doctor. \***

*Mark only one oval.*

- Not like me
- Like me

**82. 6. I do not worry about things in the future because I am sure that everything will turn out all right. \***

*Mark only one oval.*

- Not like me
- Like me

**83. 7. When something bothers me, I can ignore it. \***

*Mark only one oval.*

- Not like me
- Like me

**84. 8. I feel that there is very little that is worth worrying about. \***

*Mark only one oval.*

- Not like me
- Like me

**85. 9. No matter how bad things seem, I do not let it upset me. \***

*Mark only one oval.*

- Not like me
- Like me

**86. 10. I am not afraid to take risks, because when your number is up, its up. \***

*Mark only one oval.*

- Not like me
- Like me

## A little bit more about your personality 4

Below is a list of 30 statements. Please read each statement very carefully and rate how strongly you agree or disagree with it by checking your answer. There are no right or wrong answers, or trick questions. However, all questions must be answered. Average time to complete 4 minutes.

**87. 1. I feel like crying when watching a sad movie. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**88. 2. Certain pieces of music can really move me. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**89. 3. Seeing a hurt animal by the side of the road is very upsetting. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**90. 4. I don't give others' feelings much thought. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**91. 5. It makes me happy when I see people being nice to each other. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**92. 6. The suffering of others deeply disturbs me. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**93. 7. I always try to tune in to the feelings of those around me. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**94. 8. I get very upset when I see a young child who is being treated meanly. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**95. 9. Too much is made of the suffering of pets or animals. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**96. 10. If someone is upset I get upset, too. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**97. 11. When I'm with other people who are laughing I join in. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**98. 12. It makes me mad to see someone treated unjustly. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**99. 13. I rarely take notice when people treat each other warmly. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**100. 14. I feel happy when I see people laughing and enjoying themselves. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**101. 15. It's easy for me to get carried away by other people's emotions. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**102. 16. My feelings are my own and don't reflect how others feel. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**103. 17. If a crowd gets excited about something so do I. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**104. 18. I feel good when I help someone out or do something nice for someone. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**105. 19. I feel deeply for others. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**106. 20. I don't cry easily. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**107. 21. I feel other people's pain. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**108. 22. Seeing other people smile makes me smile. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**109. 23. Being around happy people makes me feel happy, too. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**110. 24. TV or news stories about injured or sick children greatly upset me. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**111. 25. I cry at sad parts of the books I read. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**112. 26. Being around people who are depressed brings my mood down. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**113. 27. I find it annoying when people cry in public. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**114. 28. It hurts to see another person in pain. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**115. 29. I get a warm feeling for someone if I see them helping another person. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

**116. 30. I feel other people's joy. \***

*Mark only one oval.*

- Strongly disagree
- Disagree
- Sort of disagree or sort of agree
- Agree
- Strongly agree

## **This section is about when you get angry or you make others angry**

This section has 29 multiple choice questions and on average it takes about 6 minutes to complete. Using the 5 point scale, indicate how characteristic or uncharacteristic each of the following statements is in describing you.

**117. 1. Some of my friends think I am a hothead. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**118. 2. If I have to resort to violence to protect my rights, I will. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**119. 3. When people are especially nice to me, I wonder what they want. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**120. 4. I tell my friends openly when I disagree with them. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**121. 5. I have become so mad that I have broken things. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**122. 6. I can't help getting into arguments when people disagree with me. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**123. 7. I wonder why sometimes I feel so bitter about things. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**124. 8. Once in a while, I can't control the urge to strike another person. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**125. 9. I am an even-tempered person. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**126. 10. I am suspicious of overly friendly strangers. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**127. 11. I have threatened people I know. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**128. 12. I flare up quickly but get over it quickly. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**129. 13. Given enough provocation, I may hit another person. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**130. 14. When people annoy me, I may tell them what I think of them. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**131. 15. I am sometimes eaten up with jealousy. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**132. 16. I can think of no good reason for ever hitting a person. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**133. 17. At times I feel I have gotten a raw deal out of life. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**134. 18. I have trouble controlling my temper. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**135. 19. When frustrated, I let my irritation show. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**136. 20. I sometimes feel that people are laughing at me behind my back. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**137. 21. I often find myself disagreeing with people. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**138. 22. If somebody hits me, I hit back. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**139. 23. I sometimes feel like a powder keg ready to explode. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**140. 24. Other people always seem to get the breaks. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**141. 25. There are people who pushed me so far that we came to blows. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**142. 26. I know that "friends" talk about me behind my back. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**143. 27. My friends say that I'm somewhat argumentative. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**144. 28. Sometimes I fly off the handle for no good reason. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**145. 29. I get into fights a little more than the average person. \***

*Mark only one oval.*

- Extremely uncharacteristic of me
- Somewhat uncharacteristic of me
- Neither uncharacteristic nor characteristic of me
- Somewhat characteristic of me
- Extremely characteristic of me

**This section is about the way you think**

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement. Average time to complete 4 minutes.

**146. 1. Whether or not someone suffered emotionally \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**147. 2. Whether or not some people were treated differently than others \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**148. 3. Whether or not someone's action showed love for his or her country \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**149. 4. Whether or not someone showed a lack of respect for authority \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**150. 5. Whether or not someone violated standards of purity and decency \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**151. 6. Whether or not someone was good at math \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**152. 7. Whether or not someone cared for someone weak or vulnerable \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**153. 8. Whether or not someone acted unfairly \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**154. 9. Whether or not someone did something to betray his or her group \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**155. 10. Whether or not someone conformed to the traditions of society \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**156. 11. Whether or not someone did something disgusting \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**157. 12. Whether or not someone was cruel \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**158. 13. Whether or not someone was denied his or her rights \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**159. 14. Whether or not someone showed a lack of loyalty \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**160. 15. Whether or not an action caused chaos or disorder \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**161. 16. Whether or not someone acted in a way that God would approve of \***

*Mark only one oval.*

- not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
- not very relevant
- slightly relevant
- somewhat relevant
- very relevant
- extremely relevant (This is one of the most important factors when I judge right and wrong)

**162. 17. Compassion for those who are suffering is the most crucial virtue. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**163. 18. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**164. 19. I am proud of my country's history. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**165. 20. Respect for authority is something all children need to learn. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**166. 21. People should not do things that are disgusting, even if no one is harmed. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**167. 22. It is better to do good than to do bad. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**168. 23. One of the worst things a person could do is hurt a defenseless animal. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**169. 24. Justice is the most important requirement for a society. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**170. 25. People should be loyal to their family members, even when they have done something wrong. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**171. 26. Men and women each have different roles to play in society. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**172. 27. I would call some acts wrong on the grounds that they are unnatural. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**173. 28. It can never be right to kill a human being. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**174. 29. I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**175. 30. It is more important to be a team player than to express oneself. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**176. 31. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

**177. 32. Chastity is an important and valuable virtue. \***

*Mark only one oval.*

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

## **School Bullying Experience 1 (almost there)**

In this part you will be asked to respond to questions and statements about "bullies" and "bullying."

Bullying happens when someone hurts or scares another person on purpose and the person being bullied

has a hard time defending himself or herself. Usually, bullying happens over and over. Examples include the following:

- Punching, shoving and other acts that hurt people physically
- Spreading bad rumors about other people
- Keeping certain people out of a group
- Teasing people in a mean way
- Getting certain people to gang up on others

Average time to complete 4 minutes.

**178. 1. Have you ever been bullied at school? \***

*Mark only one oval.*

Yes

No (If No please go to the next section)

**179. 2. How often have you been bullied?**

*Mark only one oval.*

one or more times a day

one or more times a week

one or more times a month

**180. 3. How did you get bullied? (Check all that happened)**

*Tick all that apply.*

- Called me names
- Made fun of me
- Said they will do bad things to me
- Played jokes on me
- Won't let me be a part of their group
- Broke my things
- Attacked me
- Nobody would talk to me
- Wrote bad things about me
- Said mean things about me behind my back
- Pushed or shoved me
- Other: \_\_\_\_\_

**181. 4. Who bullied you the most often (check all that is true).**

*Tick all that apply.*

- Older boys
- Younger boys
- Boys in my grade
- Someone who is strong
- Someone who is powerful
- Someone who has many friends
- Older girls
- Younger girls
- Girls in my grade
- Someone is an adult
- Someone who is popular
- Someone who is smart
- Someone who I didn't know
- Other: \_\_\_\_\_

**182. 5. Why do you think you were bullied? Check all that is true. Because:**

*Tick all that apply.*

- They think my face looks funny
- They think I am fat
- They think I am skinny
- They think I look too old
- They think I look too young
- They think I am a wimp
- The church I go to
- My parents
- My sister
- My brother
- My family is poor
- My family has a lot of money
- They think my friends are weird
- I am sick a lot
- I am disabled
- I get good grades
- I get bad grades
- Where I live
- The clothes I wear
- The color of my skin
- The country I am from
- I am different
- Someone in my family has a disability
- I am too tall
- I am too short
- I am in special education
- I get angry a lot

- I cry a lot
- I can't get along with other people
- They say I am gay
- The way I walk
- Other: \_\_\_\_\_

**183. 6. Did your parents know about the bullying that happened to you?**

*Mark only one oval.*

- Yes
- No
- I don't know

**184. 7. Were you able to defend yourself from the bullying?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but it was not enough to stop the incident(s))

**185. 8. Does anyone bully you at home? Check anyone who has bullied you.**

*Tick all that apply.*

- No one
- Father
- Mother
- Brother
- Sister
- Stepmother
- Stepfather
- Grandparent
- Friend
- Other relative
- Neighbor
- Other: \_\_\_\_\_

**186. 9. If you are not bullied anymore, how did it stop? (Check all that is true)**

*Tick all that apply.*

- I stood up to my bullies
- My parents intervened
- My teachers intervened
- I changed school
- My friends intervened
- I changed the reason that caused my bullying (e.g. lost weight)
- They just left me alone without any specific reason
- It stopped when I left school
- The authorities intervened
- The bullies were punished by the school
- Other: \_\_\_\_\_

**187. 10. If you are not bullied anymore, or after your bullying stopped, have you protected someone else from being bullied? If NO please go to question no13**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**188. 11. If yes, why did you protect that person from getting bullied? (Check all that is true)**

*Tick all that apply.*

- He/she was my family
- He/she was my friend
- I wish someone had done the same for me when I was bullied
- I felt sorry for that person (victim)
- Bullying someone is not right
- I didn't want her/him to suffer the way I did when I was bullied
- The reason that person was bullied was wrong
- I had bullied that person in the past and felt guilty about it
- That person was much younger than the bully
- It was a decision of the moment, and I just did it for no specific reasons
- Other: \_\_\_\_\_

**189. 12. Did you manage to stop the bullying?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes, in terms more limiting it)
- Made it worse

**190. 13. Have you ever expressed the way you felt when you were bullied to the bully ? If NO please move to the next section.**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but I did not discuss it in detail)

**191. 14. If yes, how did that turned out after you expressed how you felt to the bully? Check all that is true.**

*Tick all that apply.*

- The bullying stopped
- I was bullied even more than before
- Others made fun of me for expressing my feelings
- Others started bullying me as well
- I eventually became friends with the person who bullied me
- It felt really good expressing myself
- I was not that angry at the bully anymore
- We were forced to do this, so I didn't really express myself
- I felt more powerful
- Other: \_\_\_\_\_

## School Bullying Experience 2

In this part you will be asked about when you bullied others.

**REMEMBER:** Bullying happens when someone hurts or scares another person on purpose and the person being bullied has a hard time defending himself or herself. Usually, bullying happens over and over.

- Punching, shoving and other acts that hurt people physically
- Spreading bad rumors about other people
- Keeping certain people out of a group
- Teasing people in a mean way
- Getting certain people to gang up on others

Average time to complete 4 minutes.

**192. 1. Have you ever bullied anyone? If No please go to the next section. \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but it was more like teasing)

**193. 2. How often did you bully them?**

*Mark only one oval.*

- one or more times a day
- one or more times a week
- one or more times a month

**194. 3. How did you bully that person? (Check how often this happened).**

*Tick all that apply.*

- Called them names
- Made fun of them
- Said you will do bad things to them
- Played jokes on them
- Won't let them be a part of their group
- Broke their things
- Attacked them
- Nobody would talk to them
- Wrote bad things about them
- Said mean things about them behind their back
- Pushed or shoved them
- Other ways they were bullied
- Other: \_\_\_\_\_

**195. 4. Who did you bully? (Check all that is true).**

*Tick all that apply.*

- Older boys
- Younger boys
- Boys in my grade
- Someone who is strong
- Someone who is powerful
- Someone who has many friends
- Older girls
- Younger girls
- Girls in my grade
- Someone who is an adult
- Someone who is popular
- Someone who is smart
- Someone who I didn't know
- Other: \_\_\_\_\_

**196. 5. Why did you bully this person? (Check all that are true). Because:**

*Tick all that apply.*

- Their face looks funny
- They are fat
- They are skinny
- The church they go to
- Their parents
- Their sister
- They look too old
- They look too young
- They are a wimp
- Their friends are weird
- They sick a lot
- They are disabled
- They get good grades
- They get bad grades
- Where they live
- The clothes they wear
- The color of their skin
- The country they are from
- They are different
- Their brother
- Their family is poor
- Their family has a lot of money
- Someone in their family has a disability
- They are too tall
- They are too short
- They are in special education
- They get angry a lot

- They cry a lot
- They can't get along with other people
- They say they are gay
- The way they walk
- Other: \_\_\_\_\_

**197. 6. Did your parents know about the bullying that you did?**

*Mark only one oval.*

- Yes
- No
- I don't know

**198. 7. If you are not bullying anyone anymore, why did you stop? (Check all that is true)**

*Tick all that apply.*

- Those I bullied stood up to me
- My parents intervened
- My teachers intervened
- I changed school
- My friends intervened
- The person I bullied changed the reason that caused the bullying (e.g. lost weight)
- I just left them alone without any specific reason
- It stopped when I/they left school
- The authorities intervened
- I was punished by the school
- The parents of the person I bullied intervened
- The person I bullied changed schools
- The friends of the person I bullied intervened
- At some point I felt sorry for them
- I felt guilty for hurting them
- Other: \_\_\_\_\_

**199. 8. If you are not bullying anyone anymore: have you ever protected another person from a bully? If NO please go question no11**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**200. 9. If yes, why did you protect that person from getting bullied? (Check all that is true)**

*Tick all that apply.*

- He/she was my family
- He/she was my friend
- No one else was allowed to bully someone at my school apart from me
- I felt sorry for that person (victim)
- I realised that bullying someone is not right
- I wanted to make up for the bullying I had done
- The reason that person was bullied was wrong
- I had bullied that person in the past and felt guilty about it
- That person was much younger than the bully
- It was a decision of the moment, and I just did it for no specific reasons
- Other: \_\_\_\_\_

**201. 10. Did you manage to stop the bullying?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes in terms of limiting it)
- Made it worse

**202. 11. Has the person who you bullied ever expressed how your actions made him/her feel? If no please go to the next section.**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not in detail)

**203. 12. If yes, how did that turned out after that person expressed his/her feelings? Check all that is true.**

*Tick all that apply.*

- The bullying stopped
- I bullied him/her even more than before
- Others made fun of that person for expressing their feelings
- Others started bullying that person as well
- I eventually became friends with the person I bullied
- I felt really bad for my actions
- I felt sorry for that person
- We were forced to do this, so I didn't really listen to what that person had to say
- I felt more powerful
- Other: \_\_\_\_\_

## **Social media use (two more sections and you are done)**

This section is about if and how you use Internet. Average time to complete 1 minute.

**204. 1. Do you own or have regular access to any of the following electronic devices with Internet access? \***

*Tick all that apply.*

- Cell phone
- Laptop
- Desktop computer
- Tablet
- Other: \_\_\_\_\_

**205. 2. On average, how many hours per day do you spend online? \***

\_\_\_\_\_

**206. 3. When you are online do you expose yourself to online violence (e.g. violent videos, games, movies etc.)? If NO please go to question no5 \***

*Mark only one oval.*

Yes

No

Sort of (Yes but only usual things e.g. movie scenes with weapons and fights)

**207. 4. If yes, that is mostly to**

*Tick all that apply.*

Watch violent videos (e.g. murder, beatings etc.)

Play violent games (e.g. gun blood, dead zed, zombie warrior, mortal combat etc.)

Other:

---

**208. 5. If you still live with your parents (or when you used to live with your parents) have your parents set rules about how many hours you can be online? \***

*Mark only one oval.*

Yes

No

Sort of (Yes but not intensively)

**209. 6. Have your parents set rules about which Internet sites you can use? (If you don't live with your parents anymore, think of the time that you did, and answer question no 6 and 7). \***

*Mark only one oval.*

Yes

No

Sort of (Yes but not intensively)

**210. 7. If yes, did you follow their rules?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not always)

**211. 8. At what age did you start using the social media? \***

---

**212. 9. What types of social media do you use? Tick the boxes below if you use any of the following online platforms. \***

*Tick all that apply.*

- Instagram
- Facebook
- Google+
- MySpace
- LinkedIn
- Twitter
- Snap chat
- MSN
- YouTube
- Other: \_\_\_\_\_

**213. 10. For what purpose do you use the social media? \***

*Tick all that apply.*

- To talk to people
- To text people
- To study
- To see what others are doing
- To say things about myself (e.g. on Facebook, Tweeter etc.)
- To say things about other people (e.g. on Facebook, Tweeter etc.)
- To send pictures of myself
- To send emails
- To play games with others
- To play games by myself
- To share other people's photos
- For fun (e.g. listen to music, watch a movie etc.)
- Other: \_\_\_\_\_

## **Cyber bullying Experience 1**

Cyber bullying is when someone repeatedly makes fun of another person online or repeatedly picks on another person through email or text message or when someone posts something online about another person that they don't like. Average time to complete 2 minutes.

**214. 1. Have you ever used the social media to hurt someone? If NO, please go to question no 6a. \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but it was more like teasing)

**215. 2. If yes, how many times?**

*Mark only one oval.*

- Once
- More than once
- Once a week
- Once a month
- Quite often
- All the time

**216. 3. Who did you bully? (Check all that is true).**

*Tick all that apply.*

- Older boys
- Younger boys
- Boys in my grade
- Someone who is strong
- Someone who is powerful
- Someone who has many friends
- Older girls
- Younger girls
- Girls in my grade
- Someone who is an adult
- Someone who is popular
- Someone who is smart
- Someone who I didn't know
- Other: \_\_\_\_\_

**217. 4. Which online platform did you use to hurt them?**

*Tick all that apply.*

- Instagram
- Facebook
- Google+
- MySpace
- LinkedIn
- Twitter
- YouTube
- MSN
- Snap chat
- Other: \_\_\_\_\_

**218. 5. What ways did you use it to hurt that person? Please check all that apply.**

*Tick all that apply.*

- I spread rumors
- I shared their personal information (photos, texts etc.)
- I excluded them from a group
- I used their personal information and bought things online
- I threatened them
- I kept swearing at them online for others to see as well
- Other: \_\_\_\_\_

**219. 6. a) How often have you posted something online about someone else to make others laugh? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**220. 6.b) How often have you sent someone a computer text message to make them angry or to make fun of them? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**221. 6. c) How often have you sent someone an email to make them angry or make fun of them? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**222. 6. d) How often have you posted something on someone's MySpace, Instagram, Facebook or other web page to make them angry or make fun of them? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**223. 6. e) How often have you taken a picture of someone and posted it online without their permission? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**224. 7. What made you want to hurt that person? Please check all that apply. (If you never hurt someone online please go to the next section)**

*Tick all that apply.*

- Because of their looks
- Because of their achievements
- Because of their family
- Because the photos they post online
- Because of their religion
- Because of their ethnicity
- Because of their sexual preferences
- Because of their family's financial status
- Because of the opinions they post online
- Because we argued in other settings
- Other: \_\_\_\_\_

**225. 8. Have you hurt that person by other means apart through the use of social media?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not physically)

**226. 9. If you couldn't use social media, would you still hurt that person?**

*Mark only one oval.*

- Yes
- No
- I don't know

**227. 10. If the actions you talked/thought about up to this point regarding cyber bullying, belong to the past and you are no longer engaging in such actions/behaviours, please explain what made you stop. Check all that apply.**

*Tick all that apply.*

- Those I bullied stood up to me
- My parents intervened
- My teachers intervened
- I stopped using that online platform
- My friends intervened
- The person I bullied changed the reason that caused the bullying (e.g. lost weight)
- I just left them alone without any specific reason
- It stopped when I/they left school
- The authorities intervened
- I was punished by the school
- The parents of the person I bullied intervened
- The person I bullied changed schools
- The friends of the person I bullied intervened
- At some point I felt sorry for them
- I felt guilty for hurting them
- Other: \_\_\_\_\_

**228. 11. When you cyber bullied someone, did anyone else tried to stop you? If no, please go to the next section.**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**229. 12. If yes, how?**

*Tick all that apply.*

- Talked to me
- Told someone else (parent, teacher, police)
- Threaten me that will tell an authority figure
- Other: \_\_\_\_\_

**230. 13. Did they succeed in stopping you from cyber bullying that person?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes in terms of limiting it)
- Made it worse

## **Cyber bullying Experience 2 (hang in there...one more section)**

Cyber bullying is when someone repeatedly makes fun of another person online or repeatedly picks on another person through email or text message or when someone posts something online about another person that they don't like.

Average time to complete 4 minutes.

**231. 1. Has anyone ever used the social media to hurt you? If NO, please go to question 6a. \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but it was more like teasing)

**232. 2. If yes, how many times?**

*Mark only one oval.*

- Once
- More than once
- Once a week
- Once a month
- Quite often
- All the time

**233. 3. Who cyber bullied you the most often (check all that is true).**

*Tick all that apply.*

- Older boys
- Younger boys
- Boys in my grade
- Someone who is strong
- Someone who is powerful
- Someone who has many friends
- Older girls
- Younger girls
- Girls in my grade
- Someone is an adult
- Someone who is popular
- Someone who is smart
- Someone who I didn't know
- Other: \_\_\_\_\_

**234. 4. And which online platform did they use to hurt you?**

*Tick all that apply.*

- Instagram
- Facebook
- Google+
- MySpace
- LinkedIn
- Twitter
- YouTube
- MSN
- Snap chat
- Other: \_\_\_\_\_

**235. 5. How did that person/people hurt you? Please check all that apply.**

*Tick all that apply.*

- Spread rumors about me
- Shared my personal information (photos, texts etc.)
- Excluded me from a group
- Used my personal information and bought things online
- Threatened me
- Kept swearing at me online for others to see as well
- Other: \_\_\_\_\_

**236. 6.a) How often have you been made fun of by another person in a chat room? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**237. 6. b) How often have you received an email from someone you know that made you really mad?**

*\**

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**238. 6. c) How often have you received an email from someone you didn't know that made you really mad? This does not include "spam mail". \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**239. 6. d) How often has someone posted something on Facebook that made you upset or uncomfortable? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**240. 6. e) How often has someone posted something on another web page that made you upset or uncomfortable? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**241. 6. f) How often have you received an instant message that made you upset or uncomfortable? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**242. 6. g) How often have you been bullied or picked on by another person while online? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**243. 6. h) How often have you been afraid to go online? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**244. 6. i) How often has anyone posted anything about you online that you didn't want others to see? \***

*Mark only one oval.*

- Never
- Once or twice
- A few times
- Many times
- Every day

**245. 7. Do you know why you became a target in the first place? If YES, please check all that apply below, if no one hurt you online please move to question 14.**

*Tick all that apply.*

- Because of my looks
- Because of my achievements
- Because of my family
- Because the photos I post online
- Because of my religion
- Because of my ethnicity
- Because of my sexual preferences
- Because of my family's financial status
- Because of the opinions I post online
- Because we argued in other settings
- Other: \_\_\_\_\_

**246. 8. Has your attacker hurt you in the past in other settings (e.g. at school, work, park)?**

*Mark only one oval.*

- Yes
- No

**247. 9. If you didn't use the social media, do you think that your attacker would still hurt you by other means?**

*Mark only one oval.*

- Yes
- No
- I don't know

**248. 10. If the actions you talked/thought about up to this point regarding cyber-victimisation, belong to the past and you are no longer a victim of such actions/behaviours, please explain what made it all stop.**

*Tick all that apply.*

- I stood up to those that bullied me
- My parents intervened
- My teachers intervened
- I stopped using that online platform through which I was being cyber bullied
- My friends intervened
- I changed the reason that caused the bullying (e.g. lost weight)
- They just left me alone without any specific reason
- It stopped when I/they left school
- The authorities intervened
- The bullies were punished by the school
- The parents of the person that bullied me intervened
- I changed schools
- The friends of the person that bullied me intervened
- At some point I think they felt sorry for me
- I think they felt guilty for hurting me
- Other: \_\_\_\_\_

**249. 11. When you were cyber bullied, did anyone else tried to help you? If No please go to question no14**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**250. 12. If yes, how?**

*Mark only one oval.*

- Talked to me/support me
- Told someone else (parent, teacher, police)
- Talked to the cyber bully
- Other: \_\_\_\_\_

**251. 13. Did they succeed in stopping your harassment?**

*Mark only one oval.*

- Yes
- No
- Sort of (Yes in terms of limiting it)
- Made it worse

**252. 14. Have you ever hurt someone through social media and then that person responded by hurting you through social media? If NO please go to question 16. \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not in a severe way e.g. escalating the means)

**253. 15. If yes, how many times has it happened?**

*Mark only one oval.*

- 1 time
- 2 times
- 3 times
- 4 times
- 5 times
- 6+ times

**254. 16. Has anyone hurt you through social media and then you acted in the same way towards that person? If NO please go to the next section. \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not in a severe way e.g. escalating the means)

**255. 17. If yes, how many times has it happened?**

*Mark only one oval.*

- 1 time
- 2 times
- 3 times
- 4 times
- 5 times
- 6+ times

## **Your knowledge about bullying AND YOU ARE FINISHED!!!**

This is the last section. Please answer how the following questions apply to you. If you are not in education anymore, think of the last school you attended and you experienced some form of bullying (including cyber-bullying) or you bullied someone. Average time to complete 2 minutes.

**256. 1. I was taught by my parents that I should not bully people \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**257. 2. If yes or sort of, that was during \***

*Mark only one oval.*

- Preschool
- Primary
- Secondary
- Other: \_\_\_\_\_

**258. 3. I was taught at my school that I should not bully people \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**259. 4. If yes or sort of, that was during \***

*Mark only one oval.*

- Preschool
- Primary
- Secondary
- Other: \_\_\_\_\_

**260. 5. My school has a strict policy for all forms of bullying \***

*Mark only one oval.*

- Yes
- No
- Sort of (It has a policy but not so strict)

**261. 6. My school has an effective anti-bullying policy \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but it is not always effective)

**262. 7. At my school the staff try to help the bully change his/her behaviour \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**263. 8. At my school victims are offered support (e.g. counselling) \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but with leniency)

**264. 9. At my school the staff has the bully and the victim to sit down together and discuss the event \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but only to apologise, superficial discussions)

**265. 10. At my school the staff try to make those bullied more resilient \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**266. 11. At my school bullies are expelled \***

*Mark only one oval.*

- Yes
- No
- Sometimes

**267. 12. At my school the staff speak to us about the consequences of bullying \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**268. 13. At my school we are told to support those that are bullied \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**269. 14. At my school we are told to intervene when someone is bullying someone else \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but not intensively)

**270. 15. I believe that my school is very well informed and prepared for all forms of bullying \***

*Mark only one oval.*

- Yes
- No
- Sort of (Yes but less than well informed and prepared, needs improvement)

# **Thank you for sticking with us!!! You are making a great contribution to our research and the attempt to fight bullying.**

## **Briefing note**

Thank You

Firstly, thank you so much for all of your help with the research, and for offering your time to complete this survey!

### **Why You Were Asked You to Help**

The purpose of this study is to explore the way that various individual aspects (such as empathy, anger, self-esteem, etc.) play a role in peoples' behaviour and decision to either engage in various bullying acts or desist from such actions? Bullying is any act that is repetitive and the purpose of that act is to hurt someone; that could be a physical attack, a verbal attack, damage or theft of property, inappropriate racist comments, and even exclusion of a person from a group. In addition the survey measures the current rates in school bullying and cyber bullying. Cyber bullying is a relatively new way of bullying that has devastating consequences for victims, to the extent of suicide and of course the cyber bully that can be prosecuted because they are not aware that particular online behaviours (such as threatening someone through an email or a text, sharing someone's personal information without their consent, impersonating someone, blackmailing etc.) are illegal.

The main target of the survey is to assist with the findings in the reduction of school bullying and cyber-bullying and to contribute in creating a safer environment at schools for students and a safer online environment for Internet users.

### **How was this tested?**

In this study, you were asked to complete a series of questionnaires and answer a few open-ended questions, regarding your own experiences of bullying at school and in cyber-space. These questions were about occasions when you might have been attacked in person or online, or when you yourself attacked someone in person or online for some reason. There were also questions about how you felt about these events, and various questions about yourself, to better understand why you were attacked, and/or why you attacked someone in person or online.

### **Hypotheses and main questions (what we wanted to know):**

It is expected that people with higher levels of anger, aggression, exposure to violence, are more prone to engage in bullying as a bully, and individuals with higher levels of self-esteem, empathy, sense of morality desist from bullying behaviours.

### **Why is this important to study?**

Research has shown that victims of school bullying and cyber bullying can get very depressed, stop mixing with their friends and, even commit suicide. Research has also shown that cyber bullies and bullies in general may receive police warnings, may be taken to court by their victims, and even be sent to prison. Therefore, by getting a better understanding of what's going on and doing something about it we hope to prevent these consequences for both the victims and the perpetrators. In addition, by finding the most important risk factors both for victims and bullies as well as the protective factors, a new anti-bullying policy/training will be developed targeting to decrease bullying of all kinds, thus providing a safer environment for students at schools and for Internet users a safer online environment.

What if I have been affected by school bullying or cyber bullying and I need help?

If you have been affected by school bullying or cyber bullying, either as a victim or a perpetrator, you can find support at:

- Victim support: <https://www.victimsupport.org.uk/more-us/contact-us> and 08 08 16 89 111
- Samaritans: [jo@samaritans.org](mailto:jo@samaritans.org) and 116 123
- National bullying helpline: [admin@nationalbullyinghelpline.co.uk](mailto:admin@nationalbullyinghelpline.co.uk) and 0845 22 55 787
- If you are still a student of any level, please seek advice from your school's wellbeing officer, support officer, or school counsellor if available.

What if I want to know more?

If you are interested in learning more about bullying or/and the wrong use of social media, the negative consequences for both the victims and the bullies, or if you need advice regarding who to contact because you need psychological support (there are numerous charity organisations in the UK that provide psychological support both to victims and bullies), as well as the findings from this study (once completed) and your rights as a participant, please contact the researcher at:

Name: Calli Tzani-Pepelasi

E-mail: [Kalliopi.Tzani-Pepelasis@hud.ac.uk](mailto:Kalliopi.Tzani-Pepelasis@hud.ac.uk)

PhD Supervisor: Dr. Maria Ioannou

Thank you again for your participation, it is much appreciated.

**271. Please feel free to leave your comment about anything you might want to add or comment on and remember to press submit before you leave the page. ATTENTION=>"SONA PARTICIPANTS MUST ADD HERE YOUR UNIVERSITY ID NUMBER FOR CREDIT AWARD"=<.**

---

---

---

---

---

---

Powered by

