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INVESTIGATING THE RISKY BEHAVIOURS OF ATHLETES

Rebecca Jane Prince

Thesis Submitted to the University of Huddersfield in Partial
Fulfilment of the Requirements for the Degree of Doctor of
Philosophy

The University of Huddersfield

November 2020

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Abstract

This exploratory study investigates the issues surrounding athlete risky behaviour, an area which has been neglected previously. The term ‘risky behaviour’ refers to any behaviours which incur an unfavourable, and often harmful, risk including both illegal and legal behaviours (Trimpop, 1994; Turner, McClure & Pirozzo, 2004). Elite athletes can receive unabated amounts of media coverage for both on-field performances and behaviours outside of the sporting environment. Consequently, they have the potential to reach wide audiences and influence the general population, including aspiring athletes, and can be considered role models. Due to the lack of openly accessible statistical data, it is currently unknown which types of risky behaviours are the most common and problematic within the elite athlete population. Additionally, the issue has been long-standing, yet little is known about whether occurrences of athlete risky behaviour are actually more frequent than those in the general population, or whether it is the celebrity athlete status combined with the volume of media reports which creates the illusion of heightened rates. Furthermore, although studied in adolescent and collegiate athlete samples, there is a lack of previous work which has identified the influences or predictors of elite athlete risky behaviour. The thesis aims to address these issues and provide an exploratory view of these issues, whilst providing the foundations for the development of a new type of future research.

The first empirical chapter addresses the deficiency in publicly accessible statistical data regarding the most commonly occurring problem behaviours. A database was created based on historical cases of elite athlete offending and risky behaviours and a Smallest Space Analysis (SSA) was conducted. Three behavioural themes were identified. Sexual Behaviours was the most common amongst the sample, with ‘Sexual Offences by a Single Perpetrator’ present in almost half of the sample. Addictive Behaviours, and Violent Behaviour were the second and third frequent behavioural themes. The findings provide recommendations for the behaviours which should be given priority when devising interventions to reduce and prevent risky behaviours in the elite athlete population.

The work then moves on to make comparisons between athletes and the general population with regards to general risk-taking tendencies. Moreover, the study compares the levels of each of the personal predictor characteristics of risk-taking, which were identified in previous research, in each population. Finally, the associations between these predictor characteristics and levels of risk-taking in each population were examined. Data was collected

through an online questionnaire. It was found that the athlete population had significantly higher tendencies to engage in general risk-taking than the general population, particularly male athletes. Male athletes also scored significantly higher for many of the predictor characteristics such as sexual sensation-seeking, masculinity, psychopathy, and aggression alcohol expectancies. The associations between predictor characteristics and general risk-taking are discussed. The results suggest the possibility that environmental factors may also contribute to and influence heightened risk-taking tendencies in athletes. The findings support the results of the of Study One and highlight the need for the development of educational interventions regarding alcohol use outcomes and management of personal characteristics, such as aggression and sensation-seeking.

The final study comprises of qualitative semi-structured interviews with a sample of athletes. This was done to provide support for and develop knowledge from the findings of the previous studies further. The study also aimed to explore the influences of athlete risky behaviours further, taking into consideration environmental factors which were not investigated earlier in the thesis. A thematic analysis was conducted on the interview transcripts and five main themes emerged from the data: impact of athletic involvement, athlete identities, athlete risky behaviour, factors which increase athlete risky behaviour, and factors which inhibit athlete risky behaviour. The findings support outputs from Study One and Two whilst providing additional insight into the issues surrounding athletic involvement and athlete risky behaviour, particularly regarding environmental influences. The findings offer a variety of practical implications, for example, encouraging increase fair play values and taking steps to reduce hyper-masculinity within the sporting environment.

The implications are discussed further, alongside limitations of the work. These include, but are not limited to, the development of educational interventions, increased player welfare services, and the need for positive role models. To date, literature has predominantly focused on adolescent and collegiate athlete risky behaviours. The difficulty in accessing such a unique sample may have previously impeded the development of research into the behaviours of the elite athlete population. However, this exploratory research offers an insight into the issues within the population and future research would be beneficial to advance knowledge into the area further. Striving to reduce athlete risky behaviour may benefit athletes themselves, sporting bodies and practitioners, potential victims of risky behaviour, and the image of sport, as well as, aspiring athletes and the general population who may replicate elite athlete behaviour through social learning.

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CHAPTER ONE

Introduction

1.1 The Chapters

Chapter One: Introduction

Chapter One, the present chapter, is a general introduction to the potential issues surrounding the impact of athlete behaviour. It covers such topics as the celebrity status and media coverage of elite professional athletes, and athlete privileges and protection in the event of risky behaviour. The chapter also discusses athletes as role models and how they have the potential to influence the general population and aspiring athletes through social learning.

Chapter Two: The Impact of Sport and Predictors of Athlete Risky Behaviour: A Review of the Literature

Chapter Two is a review of the current state of the relevant literature. The previously identified predictor characteristics and influences of athlete risky behaviour are discussed throughout the chapter. The chapter commences by discussing literature which outlines the benefits of athletic involvement, but also aspects of sport which can influence athlete risky behaviour. The chapter then continues to explore each of the predictors and influences of athlete risky behaviour in more detail, including both individual differences and environmental influences.

Chapter Three: The Empirical Chapters

Chapter Three outlines the philosophical approach and methodological considerations for each of the three study chapters. Each section within the chapter also discusses the rationales for each of the studies.

Chapter Four: Study One - Exploring the Offending and Risky Behaviour of Elite Athletes

Chapter Four is a study based on historical cases of elite professional and collegiate athlete offending and risky behaviour. The data was collected through secondary sources and a database was developed. The data was then coded before a Smallest Space Analysis (SSA) was conducted. This allowed for the generation of behavioural themes, the generation of statistical data regarding the most commonly occurring behaviours, and the relationships between behaviours. The majority of the data collected focused on offending behaviours, rather

than legal risky behaviours, due to the nature of data collection from media sources. The exploratory nature of the study highlighted the need for investigation into whether athletes engage in more general risk-taking when compared to the general population as well as the influences of risk-taking, resulting in the development of the following study.

Chapter Five: Study Two - The Predictor Characteristics of Risky Behaviour: A Comparison Between Athletes and the General Population

Chapter Five is a study which examines whether athletes engage in higher general risk-taking than the general population, using a general risk-taking scale. An online questionnaire was also developed based on predictors of risky behaviour which were identified in previous research. The athlete and general populations were compared on their scores for these potential predictor behaviours to identify any significant differences, with gender differences within these populations also being explored. Finally, the scores of each population type for each of the predictor characteristic scales were then compared with their scores for the general risk-taking scale. This was done to investigate whether there were any significant associations between predictor characteristics and general risk-taking. As the study was quantitative in nature, the following study was developed to identify further areas of interest as well as for corroboration the findings from Study One and Two.

Chapter Six: Study Three - Personal Experiences and Attitudes of Athletes regarding Athletic Involvement and Risky Behaviour

Chapter Six is the final study, involving the use of thematic analysis of qualitative semi-structured interviews. This was done develop the findings from the earlier study chapters: to discover whether themes of risky behaviour in an athlete sample would support the themes found in Study one, and whether the findings would provide support for the results of Study Two. Additionally, the qualitative method allowed for more detailed data which resulted in the identification of additional factors relating to the impact of sport and the influences of athlete risky behaviour.

Chapter Seven: General Discussion and Conclusion

Chapter Seven, the final chapter, provides comprehensive evaluative discussion of the findings of the present research and discusses at length the practical implications, limitations, and directions for future research. The chapter also summarises and concludes the thesis.

1.2 Celebrity Athletes and the Media

In February 2014, a CCTV video emerged on the internet (TMZ, 2014) which pictured Baltimore Ravens running back Ray Rice punching his fiancée, Janay Palmer, and knocking her unconscious. The attack took place in the elevator of a casino in Atlantic City. He was then shown dragging her out of the elevator and was reported to have been drinking alcohol. (BBC Newsbeat, 2014). They have, however, married since the incident and Rice won an appeal against indefinite suspension from the NFL meaning he was eligible to continue playing (BBC Sport, 2014). His wife has since taken to social media to defend Rice's actions (BBC Newsbeat, 2014).

For the purpose of this research, the term 'elite athlete' can be defined by those completing to the highest level of competition within their respective sport (Scharfen & Memmert, 2019). Elite professional athletes are often referred to and considered to be 'celebrities', a term which is defined by McCracken (1989) as individuals who are notoriously known and receive significant amounts of media attention. Celebrity athletes are promoted and sold to us through the mass media, to which we then watch the sports they play (Miller & Lacznia, 2011) and can be influenced by the products they endorse (Bush, Martin & Bush, 2004). The publicity they receive can stem from their sporting performance, but they can also gain a lot of attention for their off-field behaviours and personal lives. Boyle and Haynes (2009) state that the general population hold a desire to examine cases of fame and fortune, and that there is also an interest in the underlying narratives of heroism of athletes experiencing success and failure or trial and tribulation. Boyle and Haynes (2009) propose that the rewards of becoming an elite athlete – fame and wealth - are fundamental motivators for ambitious athletes who aspire to turn professional. They suggest that the narrative of the noble athlete who overcomes adversity and plays their sport for the love of the game being a myth, and that it is, in fact, the rewards which drive athletes to excel in professional-level and elite sport. However,

there is no empirical support for this, and so further research would be required to examine motivations behind athletic involvement.

The extensive amount of media coverage dedicated to sport provides an indicator of its international impact (Brown, 2014). For example, in 2009 it was reported that \$11.2 billion was spent on sports sponsorship (Fitch, Ozanian & Badenhausen, 2010), with Nike alone spending \$4 billion for their products to be represented by some of the world's most elite athletes (Kaplan, 2010). The strategy of targeting athletes to promote products is often used because it can lead to greater product awareness (Carison & Donovan, 2008) and can lead to increased customer loyalty (Bush, Martin & Bush, 2004), which explicates, in part, the popularity and huge impact of elite athlete media coverage.

However, sport media can promote and defend hegemonic masculinities through its portrayal and reportage of male elite athletes and sports (Dworkin & Wachs, 2000). The focus on male athletes, especially those who engage in contact sports, creates an image of masculinity concentrated on strength, aggression, and the athletic male physique. Sport coverage normalises aspects of violence, endorses conflict, and converts athletes into heroes (Coakley, 2007). Further, sport media can contribute towards the classification of masculinity and the perception of criteria required be the ideal man (Nelson, 2018). Like other types of media, sport media can also frame information by determining what news to release to the general public (Hughes & Shank, 2005). When elite professional athletes, who are often perceived as role models by the general public and collegiate athletes, are involved in cases of infidelity or sexual assault, the media can be used to restore their reputations. For example, Kobe Bryant's wife was present as he publicly apologised for his infidelity in the presence of the media. Similarly, Ray Rice's wife was also by his side after there was a video released which depicted his violence towards her (Nelson, 2018). The media can reinforce hegemonic masculinity by adopting a flippant attitude, while representing women as promiscuous and violent individuals (Dworkin & Wachs, 2000) or as partners who simply tolerate the behaviour of their athletic partners by continuing their relationship after an act of domestic violence (Smith & Hattery, 2006).

1.3 Athlete Privilege and Protection

Athletes often seem to be permitted special privileges when committing serious offences or risky behaviours. These privileges can manifest through lenient penalisations from the criminal justice system. For example, National Football League (NFL) player Donte Stallworth who was convicted in 2009 of Driving Under the Influence and manslaughter, but only served 30 days in prison (Klemko, 2014). Stallworth was also allowed to play in the NFL again once he had served his sentence. It has been suggested that the privileges received as an athlete should be taken away and they should be disallowed from further involvement in professional sport (Boswell, 2014). Another example derives from the case of ex-Stanford University swimmer Brock Turner was in court in 2016 for sexually assaulting an unconscious woman in 2015 (Levin, 2016a). During the court case Turner wrote a letter to the judge placing blame on the alcohol use and party culture, seemingly refusing to take responsibility for the assault of the woman (Levin & Wong, 2016). Despite a highly emotive impact statement in court by the victim outlining the significant effect it continued to have on her (Buncombe, 2016), the Judge, Aaron Persky, gave Turner an arguably lenient sentence of six months stating:

“a prison sentence would have a severe impact on him. And that may be true in any case. I think it’s probably more true with a youthful offender sentenced to a state prison at a – at a young age”

“character letters that have been submitted do show a huge collateral consequence for Mr. Turner based on the conviction”

Furthermore, although Turner received a six-month sentence, he only served three and a half months of his sentence in prison (Levin, 2016a). There was a significant social reaction to the controversial case and sentencing with activists protesting and calling for Judge Persky to be recalled from his position, with over one million signatures on a petition (Levin, 2016b), before he was voted out by the public and recalled from his position in 2018 (Astor, 2018). Additionally, a new legal legislation was passed in California resulting in the requirement of prison time for those who commit sexual assault on unconscious victims, addressing the loophole which allowed Turner to serve such a short sentence (Levin, 2016b). Cases like this have also inspired provocative documentaries into sexual assault on US campuses, such as *The Hunting Ground* (Dick & Ziering, 2015). Elite professional athletes, sporting bodies, and prosecution services have a position of power through a platform in which they can reach a wide population, and athlete privilege can communicate a detrimental message to the general population, especially young people and aspiring athletes.

Athletes who engage in risky behaviours can sometimes be offered protection through athletic programmes and institutions. Collegiate and elite professional athletes can generate

great revenue and increased exposure for the institution or club, and the better an athlete or a team does, the more attention and money the institutions and clubs will receive (Davis & Smith, 2009). Hence, colleges and universities can be reluctant to accept there is a problem and accept player liability as this could threaten the career of the athlete athletes (Davis & Smith, 2009). It can be whole organisations which create and reinforce a toxic culture in which male athletic perpetrators are depicted as holding no accountability, and females involved as “groupies” (Nelson, 2018). Despite media attention on sexual violence within colleges, athletic institutions have isolated their collegiate athletes, leading to the continuation of risky sexual behaviour and these problematic behaviours becoming the norm (Gage, 2008). Nelson (2018) reports that a 2014 U.S. government report revealed there are different resolution processes for collegiate athletes with regards to sexual violence, with 20% of colleges reporting that they had given oversights to their athletic sectors. In the U.S, collegiate athlete risky behaviours can attract attention from the media, damaging the image of the institution, and so it is often the case that they are able to protect themselves from external penalties (Gage, 2008). Universities which are found to be involved in misconduct regarding these cases can be subject to a variety of injunctions such as loss of scholarships, resignation of athletic officials and coaches, loss of funding and scholarships, and player and team bans (Nelson, 2018).

1.4 Athletes as Role Models

Individuals or media can reinforce decisions of which behaviours, values, attitudes, and skills are appropriate or acceptable in a social context (Mitchell, Jones & Krumboltz, 1979). People obtain a substantial amount of their behavioural tendencies through the observation and imitation of others in a social context (Bandura, 1986), and these individuals are often considered role models (King & Multon, 1996). This concept may offer an understanding of the decisions of student-athletes with regards to substance abuse (Bandura, 1977) and decisions to engage in other forms of risk-taking behaviours.

A role model is an individual who is “*perceived as exemplary, or worthy of imitation*” (Yancey, 1998, p. 254) and can arise from a multiplicity of environments such as family, school, friends, and entertainment. Role models help young people to develop their values and understand social norms, aiding them to cope with the conflicts of early life and adolescence (Biskup & Pfister, 1999). With the increase in mass media the general population, including young people, is increasingly exposed to media reports of influential figures (Giles & Maltby,

2004). Adolescents experience a phase of identity development as they are distanced from identification with their parents (Cramer, 2001). Media figures play an important role in this development as they present possible identities that they may wish to adopt (Larson, 1995), whilst providing guidance regarding the development of values and beliefs, gender role identity, and perception of sexual and romantic issues (Arnett, 1995). The growing popularity of media figures, such as elite athletes, has been termed “*hero crisis*” (Pleiss & Feldhusen, 1995).

Elite athletes can act as role models for the general population, as well as upcoming and aspiring athletes, and previous literature has identified that young people can commonly become attached to athletes (Harris, 1986; Yue & Chueng, 2000). Biskup & Pfister (1999) found that a high percentage of young males reported athletes as being their role models, describing their admiration of athletes because of their physical strength and aggression levels. Contrastingly, young girls tended to report their role models to be music and film stars. Boon and Lomore (2001) found that 59% of participants reported that they had been influenced in some way by media figures with regards to their attitudes or beliefs, with the majority being positive influences, such as engaging in sport or involvement in community work. Role models, such as elite athletes, can inspire individuals to emulate patterns of behaviour and they play a particularly crucial role in childhood and adolescence as they provide ways of discovering how to act in their environment and in society.

Elite athletes can be positive role models to young people in terms of their dedication, health, and self-discipline. For example, football player Cristiano Ronaldo was labelled the ‘*Most Charitable Athlete*’ after donating money to cover the costs of surgeries for terminally ill children, amongst other charities (Saul, 2015). Another example is Australian rugby union player David Pocock publicly refused to marry his girlfriend until his gay friends had equal rights with regards to marriage and he encouraged other athletes to be inclusive and to stop homophobia (Christensen, 2014). National Basketball Association (NBA) player LeBron James also made headlines when he opened a school for underprivileged children struggling in education and at home (Savvas, 2018). Conversely, elite athletes can also be negative role models for young people when there are media reports of athlete involvement in risky behaviour. An example is National Rugby League (NRL) player Mitchell Pearce. He was video recorded by a member of the general public highly intoxicated, forcing an unwanted kiss on a woman, simulating sex with a dog, and urinating on the woman’s property when she rejected his sexual advances (The Guardian, 2016). Additionally, former Arsenal Football Club player

Nicklas Bendtner reportedly threatened a taxi driver, rubbed his genitals against the taxi and whipped it with his belt whilst using derogatory language aimed at the driver. The incident was said to have occurred in Copenhagen with his friends and was allegedly heavily intoxicated at the time of the incident (Fifield, 2014).

1.4.1 Social Learning Theory

The influence of elite athletes as role models for the general population, in addition to upcoming and aspiring athletes and teammates, can be explained through Bandura's Social Learning Theory (1969, 1977). The theory centres on the idea that individuals learn from observation, imitation, and modelling within a social context (Ormrod, 1999). Bandura (1977) explains that there four processes attached to this social learning: attention, retention, reproduction, and motivation. Attention refers to the amount of attention which is given to a behaviour as, for a behaviour to be imitated, it must be noticed. Retention refers to how well the observer can remember the behaviour, and reproduction is the ability of the observer to perform the behaviour. Motivation relates to the observed rewards and punishments which follow the behaviour; if perceived rewards outweigh possible negative consequences then vicarious learning is more likely to occur.

Vicarious learning occurs as an individual observes another being rewarded or punished when engaging in specific behaviours (Stuart-Hamilton, 2007). For a behaviour to be vicariously learned there must be a link between an observer and an individual who is recognised by the observer as a model of behaviour; to be identified as an appropriate model gives the behaviours of the model social legitimacy (Almeida, 2011). Behaviours are acknowledged as appropriate and/or desirable because individuals socially comprehend them as such but concepts, reasoning, and how to implement these behaviours are subject to collective understanding (Veblen, 1906). It is rare that an observer limits their observations and adoption of behaviours from just one link or model. People are connected to a variety of links and each link varies in intensity, referred to as the 'observer-model' relationship (Bandura, 1965, 1971; Bandura, Ross & Ross, 1963). The strength of a link is dependent on the level of reinforcement; when the observer perceives the reinforcement to be high a strong link is formed, and when the observer recognises the reinforcement to be low a weak link is formed (Almeida, 2011). Bandura (1977) outlines three types of reinforcement which can occur: vicarious reinforcement, differential reinforcement, and self-reinforcement. Research into the

athlete population has reported findings consistent with this theory; Diacin, Parks, and Allison (2003) identified that athlete's responses regarding attitudes toward performance-enhancing drugs were consistent with each of these types of reinforcement.

Vicarious positive reinforcement is the result of observation of a model, and its behavioural consequence, after the formation of a link. Vicarious positive reinforcement reasserts the behaviour of the observer through the continuous observation of the behaviour of the model (Bandura, 1971; Flanders, 1968). Alternatively, vicarious punishment occurs when the observer views the consequences of a model's behaviour to be negative and so this reduces the tendency to engage in similar types of behaviours (Bandura, 1971). A classic example of vicarious reinforcement is the research of Bandura, Ross, and Ross (1963). They found that children who were placed in a room with a model engaging in aggressive acts towards a Bobo doll were much more likely to imitate these aggressive behaviours towards the doll, both physically and verbally, unlike the children in the non-aggressive condition who displayed very few aggressive behaviours. Subsequently, Bandura (1965) found that children who watched videos of aggressive behaviours being consistently punished were less likely to engage in aggressive behaviours. Rosekrans and Hartup (1967) also found that children who consistently witnessed assaultive behaviour being rewarded were most aggressive, those who observed it consistently punished displayed little imitative assaultive behaviours, and children who saw aggressive behaviours occasionally being rewarded were moderately aggressive. However, because of the complexity of human behaviour and social influence, people are not always consistent in how they respond to aggressive behaviour displayed to them (Bandura, 1971).

Research has found that vicarious reinforcement can also occur within the athlete population. Diacin, Parks, and Allison (2003) report that athletes had more positive attitudes towards performance-enhancing drugs when they had observed other athletes experience success when taking them. This led to the observer holding a desire to be in the same situation and this can motivate them to begin or continue taking the substances, despite the risks involved. This theory can also be used to describe how upcoming and aspiring athletes, and individuals from the general population can be influenced by elite athlete behaviour. For example, an athlete is caught taking illegal drugs or drinking heavily on a regular basis and engaging in antisocial behaviour. If the athlete is allowed to continue to play their sport without suspension or reprimand, then this may increase the likelihood that observers who view these athletes as role models will also engage in these behaviours. However, if these athletes were to

face punishment for their actions, then it is less likely that observers will be influenced and engage in these actions.

Differential reinforcement is the process by which individuals anticipate the consequences of their own actions (Bandura, 1977). Akers and Sellers (2004) explain that this process occurs when an individual chooses whether to engage in deviant or criminal activity; individuals will draw on past, present, and potential future rewards and punishments. Both positive and negative reinforcement in response to their actions can then increase the likelihood of an individual repeating offending behaviour in the future. Diacin, Parks, and Allison (2004) state that this type of reinforcement can be examined in the athlete population, for example, when the coach ignores or encourages a player's use of performance-enhancing drugs and then rewards them with more playing time, meaning that the player has experienced a desirable response and is therefore more likely to continue to take the substances. This reinforcement can be used to explain how upcoming athletes can emulate and continue to engage in behaviours viewed in elite professional athletes. For example, an amateur athlete may witness an elite athlete engaging in wild behaviour in a nightclub which is then either ignored or praised in the media and by the individuals who surround them. The aspiring athlete may then decide to engage in similar behaviours and experience the same consequences, meaning that the behaviours are continued into the next generation of elite professional athletes. In addition, members of the general population may see athletes taking performance-enhancing substances without consequence whilst being complimented on their physique and performance, and then emulate this by taking steroids at the local gym to become more muscular.

Self-reinforcement refers to individuals who are not influenced by other, but instead remain unaffected despite the actions of others (Bandura, 1977). Diacin, Parks, and Allison (2003) found that some athletes' perceptions remained unchanged without influence of teammates, allowing self-reinforced views to take over those of others. This was expressed by participants explaining that they would not take banned substances, even if their teammates did. This type of reinforcement can be used to explain why not all individuals will emulate the offending and risky behaviour of elite athletes who they view as role models. So, for instance, a member of the general population or an aspiring athlete may view an elite professional athlete as a role model but may not be influenced by antisocial behaviours displayed by the athlete in the media, despite the athlete not being punished, due to pre-existing self-reinforced negative views on antisocial behaviour, but instead may be influenced by the athletes' self-discipline and on-field behaviours which the individual views and has self-reinforced as positive.

1.5 The Current Research

The following chapters explore the issues surrounding athlete risky behaviour. For the purpose of the thesis, the term ‘risky behaviour’ refers to any behaviours which incur an unfavourable, and often harmful, risk including both illegal and legal behaviours (Trimpop, 1994; Turner, McClure & Pirozzo, 2004). Athletes, particularly those who play professionally, can gain an abundance of media attention and have the potential to influence the general population as well as aspiring athletes. However, the majority of previous research focuses on adolescent and collegiate athletes. Furthermore, there is a lack of openly available statistical information and previous research which outlines the size of the problem and the influential factors of athlete risky behaviour.

The research aims to address these gaps in previous research, by first broadly exploring the issue of risky behaviours in a sample of professional athletes, leading to the generation of statistical data and common risky behaviour themes to explore the gravity of the issue. Next, levels of general risk-taking in an athlete sample will be compared to the general population to identify if and how these levels differ. The study then explores more specific personal characteristics and differences, identified in previous literature, to investigate potential predictor characteristics of heightened risk-taking within each population. Finally, qualitative analysis of personal accounts from various athletes will be performed to further explore issues identified through the prior quantitative data.

CHAPTER TWO

The Impact of Sport and the Predictors of Athlete Risky Behaviour: A Review of the Literature

2.1 Introduction

The following chapter is an extensive review of existing literature which firstly discusses some of the beneficial impact of sports on athletes and, following this, explores the existing literature pertaining the influences of athlete risky behaviour. An extensive literature search was conducted, using Scopus, Google Scholar, and university library databases. The search was conducted from September 2015 – September 2016, with updated reviews of the literature being conducted throughout the research process. Nine main influences were identified, including both individual differences and environmental factors. This review has informed the empirical studies within the current thesis, by highlighting gaps in the literature providing areas which require further study. Finally, aims and objectives of the research are outlined.

2.2 Beneficial Impacts of Athletic Involvement and Risk Factors for Athlete Risky Behaviour

Athletic involvement has been found to have considerable beneficial impacts on high school and collegiate athletes. These benefits can include increased academic achievement (e.g. Marsh & Kleitman, 2003; Miller, Melnick, Barnes, Farrell & Sabo, 2005; Schafer & Armer, 1968; Veliz & Shakib, 2014; Yeung, 2013), enjoyment (e.g. Wendling, Flaherty, Sagas, & Kaplanidou, 2018), improved self-esteem (Phillips & Schafer, 1971), heightened peer status (e.g. Phillips & Schafer, 1971; Rehberg, 1969; Spady, 1970), better physical and mental health (e.g. Agans, Johnson, & Lerner, 2017; Eime, Young, Harvey, Charity & Payne, 2013; Janssen & LeBlanc, 2010; Simpkins, 2015), and improved social functioning (e.g. Agans, Johnson, & Lerner, 2017; Simpkins, 2015). It has also been suggested that athletic involvement can result in a lower prevalence of criminal and antisocial behaviour (Miller, Melnick, Barnes, Sabo & Farrell, 2007; Spruit, van Vugt, van der Put, van der Stowe & Stams, 2016; Veliz & Shakib, 2012) and reduced illicit drug use (Buckman, Yusko, Farris, White & Pandina, 2011; Kwan, Bobko, Faulkner, Donnelly & Cairney, 2014) when compared to their non-athlete counterparts. Fair play attitudes within teams (Junge, Dvorak, Rösch, Graf-Baumann, Chomiak & Peterson, 2000) and strong bonds with prosocial figures such as parents and coaches have been identified as protective factors against offending and risky behaviour (Ford, Pomykacz, Veliz, McCabe & Boyd, 2017; Hirschi, 1969; Rutten, Stams, Biesta, Schuengel, Dirks & Hoeksma, 2007).

In contrast, it has been reported that some aspects of athletic involvement can influence, or predict, increased athlete risky behaviour. Previous research has found that certain individual differences of athletes can serve as predictors for increased risky behaviours: gender (e.g. Arnold, Fletcher & Farrow, 2002; Huang, Jacobs & Derevensky, 2010; Lipowska Lipowska, Jochimek, & Krokosz, 2016; Wagner, 2001), age (Huang, Jacobs & Derevensky, 2010), heightened perceived power status (e.g. Finkelstein, Baghurst & Shavers, 2015; Pappas, 2012; Shavers, Baghurst & Finkelstein, 2015), masculinity and aggression (e.g. Connell & Messerschmidt, 2005; Crosset, 1999; Eder, Evans & Parker, 1997; Kreager, 2007; Nucci & Kim, 2005; Pappas, McKenry & Catlett, 2004), personality factors such as psychopathy (Nicholls, Madigan, Backhouse & Levy, 2017), sensation-seeking and impulsivity (e.g. Mastroleo, Scaglione, Mallett & Turrisi, 2013; Yusko, Buckman, White & Pandina, 2008; Zuckerman, 1983), and attitudinal differences (e.g. Cross, Basten, Hendrick, Kristofic & Schaffer, 1998; Junge, Dvorak, Rösch, Graf-Baumann, Chomiak, & Peterson, 2000; Rutten, Deković, Stams, Schuengel, Hoeksma, & Biesta, 2008; Stephens & Bredemeier, 1996) and substance abuse (e.g. Crosset, 1999; Ford, 2007; Kwan et al., 2014; O'Brien & Lyons, 2000; Veliz, Boyd & McCabe, 2015). Previous research has also found that risk factors of risky behaviour can include environmental influences: negative attitudes related to fair play values (e.g. Junge et al., 2000; Rutten et al., 2008; Stephens & Bredemeier, 1996), social influence (e.g. Barber, Stone & Eccles, 2010; Fredricks & Eccles, 2005; Haynie, 2002; Kavussanu, 2008) masculine sport environments (e.g. Coakley, 2007; Crosset, 1999; Ford, 2007; Messner & Sabo, 1994; Nelson, 1994; Sabo & Runfola, 1980; Warshaw, 1988), over-conformity to team social norms (e.g. Goffman, 1967; Hughes & Coakley, 1991; Kreager, 2007; Sabo, 2004; Warr, 2002) and type of sport (e.g. Connell & Messerschmidt, 2005; Gage, 2008; Kreager, 2007; Veliz, Boyd & McCabe, 2015). Each of these previously identified predictors of athlete risky behaviour will be discussed below, with references to the relevant previous research.

2.3 Predictors of Athlete Risky Behaviour

The following sections discuss predictors of athlete risky behaviour which have been identified in previous research, including both individual differences and environmental factors.

2.3.1 Gender

Previous research has found that, in the general population, males are more likely to engage in risky behaviours than females (e.g. Schuster, Mermelstein & Wakschlag, 2013; Veselska, Geckova, Orosova, Gajdosova, van Dijk & Reijneveld, 2009) and females are generally more risk averse than males (Meier-Pesti & Penz, 2008). Furthermore, it has been suggested that athletes engage in more risk-taking behaviours than their non-athlete counterparts, despite gender (e.g. Faurie, Pontier & Raymond, 2004; Mastroleo, Scaglione, Mallett & Turrisi, 2013; Yusko, Buckman, White & Pandina, 2008).

The evolutionary theory suggests that young males within polygamous species can often engage in risk taking in an effort to breed with young females, for example displaying extravagant behaviours and prominent displays which can make them more susceptible to predators (Pawlowski, Atwal & Dunbar, 2008). With humans, risk taking behaviours can be a form of display, and therefore sex differences can lead to risky behaviours becoming conspicuous in male behaviour (Pawlowski et al., 2008). Risk taking in human males can act as a mating display (Hawkes, 1990, 1991; Pawlowski et al., 2008). Many studies have identified risk taking behaviours as more common in young males than females, such as sexual behaviours (Clift, Wilkins & Davidson, 1993; Poppen, 1995), risky driving behaviours (Chen, Baker, Braver & Li, 2000; Flisher, Ziervogel, Charlton, Leger & Robertson, 1993; Harre, Field & Kirkwood, 1996), drug use (Tyler & Lichtenstein, 1997), gambling and financial risk (Bruce & Johnson, 1994; Powell & Ansic, 1997), aggressive and conflict (Campbell, 1999; Daly & Wilson, 1988; Wilson & Daly, 1993), and recreational outdoor risk taking (Howland, Hingson, Mangione & Bell, 1996; Wilson, Daly, Gordon & Pratt, 1996). Contrastingly, Kerr and Vlaminkx (1997) report that females found risk taking behaviours more stressful than males.

Using the Domain-Specific Risk-Taking (DOSPERT) scale, Weber, Blais and Betz (2002) investigated the perception of risk that males and females had in five different risk domains (Social, Recreational, Financial, Health and Safety, and Ethical). Gender differences were found in four out of the five domains, with males perceiving less risk and displaying a greater predisposition to engage in risky behaviours. Johnson, Wilke, and Weber (2004) found similar gender differences for the DOSPERT risk domains using a large German sample. Both studies, however, found that results for Social risk were different, with either no gender differences found or females reporting greater susceptibility to engaging in social risky behaviours. When this difference was found, females tended to perceive greater benefit and less risk when engaging in social risk (Johnson et al., 2004; Weber et al., 2002). These studies found variability in participant's inclination to engage in risk across domains, suggesting that

propensity to engage in risk taking is not merely the product of a specific general personality trait which encourages risk taking. Rather, individual and group differences are considerably due to varying perceptions of risk in different domains (Harris & Jenkins, 2006). However, it has been reported that gender differences in risk domains can reduce with age due to changes in attitudes (Rolison, Hanoch, Wood & Liu, 2014).

Lipowski, Lipowska, Jochimek, & Krokosz (2016) state that female athletes tend to analyse the costs and benefits of a behaviour and can favour the benefits of consistent goal-orientated activities over behaviours which bring immediate pleasure, such as substance abuse. Savage and Holcomb (1999) found that involvement in sport can serve as a protective factor against risky sexual behaviour in females. It has been suggested that involvement in sports can be taxing for women due to gender stereotypes and adopting typically masculine features can bring ridicule from others (Knifsend & Graham, 2012). Consequently, female athletes can overcompensate their femininity, increasing their maturity, and avoiding involvement in risky behaviours (Malcom, 2003). This is supported by Lipowska et al. (2016) who claim that female athletes may be more mature than males, both athletes and non-athletes, and female non-athletes, leading to comparatively less involvement in risky behaviours.

However, there is literature which suggests that this is not always the case, and that athlete gender differences in the propensity of engaging in risky behaviour are dependent on type of risky behaviour. Huang, Jacobs and Derevensky (2010) found that male collegiate athletes reported higher prevalence of risky sexual behaviours, such as unprotected sex and multiple sexual partners, than female collegiate athletes. They stated that this may be a result of higher sensation-seeking in male athletes leading to heightened risk-taking, as proposed in other studies (Arnold, Fletcher, & Farrow, 2002; Wagner, 2001). Additionally, Huang et al. (2010) found that risky sexual behaviours and gambling severity in the male athlete sample were negatively correlated. They attributed this to the possibility that male gambling can lead to more social isolation and thus fewer sexual interactions. Conversely, as prevalence of risky sexual behaviour increased in the female athlete sample so did gambling severity, showing a positive association between the behaviours in females. Female athletes who were problem gamblers were found to be 3.5 times more likely than female athlete non-gamblers to engage in risky sexual behaviours. They attributed this to possible financial difficulties from gambling which could result in the involvement in riskier sexual acts to finance their habit or pay debts. They also suggested that female athletes who gambled could be higher sensation-seekers and so may seek more exciting sexual situations, as suggested in other previous research (Kuley &

Jacobs, 1988; Powell, Hardoon, Derevensky, & Gupta, 1999). Another key finding was that both male and female athletes who drank heavily reported heightened risky sexual behaviour, but these effects were twice as large in females than males. Again, Huang et al. (2010) suggested that this may be due to sensation-seeking tendencies and also less perception of danger whilst under the influence of alcohol (Gullette & Lyons, 2006) and stronger alcohol expectancies of sexual enhancement (Kalichman, Cain, Zweben, & Swain, 2003).

From the literature it can be assumed that athlete gender differences in the prevalence of risky behaviours can depend on the type of risky behaviour as well as individual differences of the athletes. However, research into gender differences and athlete risky behaviour has, hitherto, primarily focused on collegiate athletes. Consequently, further research into these effects within the wider athlete population needs to be conducted to understand if these gender differences are also present in older athlete groups. Additionally, this would allow for the identification any additional factors, which stem from more professional and older athlete populations, which can influence these gender differences. Furthermore, it would be beneficial to compare these gender differences in both the athlete and general populations to understand the extent of the influence of athletic involvement alongside gender differences.

2.3.2 Age

Research has found that risk taking is especially common in adolescents and young adults, often decreasing with age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds, Basso, Miller, Whiteside & Combs, 2019). Many studies report older adults to be risk avoidant (Deakin, Aitken, Robbins & Shahakian, 2004; Rolison, Hanoch & Wood, 2012; Turner & McClure, 2003; Wallach & Kogan, 1961).

It has been theorised that emotional processing can be a major factor in some settings which involve risk taking (Figner, Mackinlay, Wilkening, & Weber, 2009) and emotional processing changes in later life (Rolinson et al., 2014). Carstensen and Mikels (2005) reported that adults in later life tend to show a bias towards positive information over negative information when compared with younger adults, and this can result in the presence of age differences during situations incurring risk (Wood, Busemeyer, Kolling, Cox & Davis, 2005). Furthermore, there are further factors which can influence risk taking through the ages. An example of this was given by Fox and Tannenbaum (2011), who explained that a climber may climb a dangerous rock face due to peer pressure, despite their aversion to risk. Younger adults

tend to be more influenced by peer pressure when making risky decisions when compared to other age groups. This suggests that there can be other underlying factors which affect risky behaviour with age.

Rolison et al. (2014) conducted a cross-sectional study using the DOSPERT scale with a sample of the general population. It was found that social risk increased from young to middle age before reducing in later life, recreational risk reduced more heavily from young to middle age than in later life, financial risk reduce steeply in later life, whilst health and safety, and ethical risk both reduced gradually with age. However, a critique of the study, as with other age research, is that it did not account for risk taking inclinations through the ages. This means that the research does not allow for identification of the developmental trajectory of DOSPERT scores across risk domains. Rolinson et al. (2014) explained that changes across generations, historical events, and cultural differences can influence attitudes towards risk taking. For example, Weber and Hsee (1998) found differences in preferences for financial risk behaviour between Polish and German participants. Additionally, Blais and Weber (2006) found differences across risk domains between English and French participants.

Huang, Jacobs and Derevensky (2010) conducted a study involving a sample of collegiate athletes. They found that older male collegiate athletes were more likely to participate in risky sexual activities, suggesting that with age came sexual experience and higher risk taking tendencies. There is the potential that specific aspects of athletic involvement could override the typical moderating influence that increased age and maturity has on risk-taking. For example, previous research has suggested that the presence of peers and other individual differences can override age in the tendency for engaging in risky behaviours (Coleman, 1961; Gardner & Steinberg, 2005; Kretsch, Mendle & Harden, 2014).

There is currently a lack of research which explores the influence of age on athlete samples, particularly older athletes, particularly beyond college. Given that athletes can spend large amounts of time in athletic peer groups, it is important to research the impact of age on athlete risky behaviour. To clarify, this is currently a neglected area of research. Hitherto, the previous literature suggests that risky behaviour in the general population decreases with age, but contradicting results have been found in the athlete population. Additionally, peer influence can increase propensity of risk-taking. The impact of age in the athlete risky behaviour, a typically older population who can spend large periods of time with teammates, should be explored further, alongside other individual differences. It may also be beneficial to investigate if and how age can influence different types of athlete risky behaviour.

2.3.3 Power Status

The term “power” refers to the amount of influence an individual has over others due to the capacity they have to give reward and punishment, and ability to control valuable resources (Anderson & Galinsky, 2006; Bandura, Ross & Ross, 1963; Emerson, 1962; French & Raven, 1959; Goldhamer & Shils, 1939; Keltner, Gruenfeld & Anderson, 2003; Lewin, 1951). Therefore, power of an individual is relative to other individuals and status within groups (Emerson, 1962; Thibaut & Kelley, 1959). Individuals with a high status who are seen to possess power can have an excessive influence on others. For example, research into power suggests that it affects various processes such as stereotyping (Fiske, 1993) and dress sense (Pfeffer, 1992).

French and Raven (1959) identified five types of power based on level of expertise, level of attractiveness, legitimacy, coerciveness, and rewarding power, with each having differing effects on social influence processes. An example of this is described in Bandura, Ross and Ross (1963) as they state that an individual who uses coercion or threatening behaviour to gain power via their ability to administer punishments to others will increase others’ avoidance behaviour around them. Additionally, their attractiveness will decrease and their effectiveness in changing the behaviours of others outside of their immediate social influence setting (French, Morrison & Levinger, 1960). Contrastingly, when an individual uses their power to reward, this increases their attractiveness to others and increases other’s desire to be in their presence (Bandura, Ross & Ross, 1963). Attractiveness is thought to extend the power of the controller over a wide variety of behaviours (French & Raven, 1959).

Once power is attained, it can steer away from reward and punishment and lead to confidence and optimism, and consequent risk-taking behaviour (Anderson & Galinsky, 2006). Research has revealed that power can influence an individuals’ perception of risk (Anderson & Galinsky, 2006; Maner, Gailliot, Butz & Peruche, 2007; Lammers, Galinsky, Gordijn & Otten, 2008). Anderson and Galinsky (2006) propose that having power fuels an individuals’ tendency to take risks, that they attend to more reward-laden information, and they attend less to the potential hazards required for that reward. They state that, people with perceived power are more likely to be involved with activities such as gambling and unprotected sex as they are more focused on winning money or immediate physical pleasure, rather than losing a large amount of money or contracting a sexually transmitted disease and have fewer barriers to achieving this. However, power influenced risk-taking can be lessened when the individuals

possess a sense of responsibility (Anderson & Galinsky, 2006). Additionally, Maner et al. (2007) discovered that participants in higher power roles engaged in riskier behaviour when their power role was stable but presented fewer risky behaviours when there was the danger of losing their power status. However, Ronay and von Hippel (2010) argue that power is not universally the sole influence of risk-taking behaviour but has suggested that levels of risk taking could be due to a combination of power and exposure to testosterone.

Generally, elite athletes can be awarded the title of role models (Biskup & Pfister, 1999) and receive unabated amounts of attention and scrutiny from the media and the public (Boyle & Haynes, 2009), which may result in a perceived level of heightened status and power. Idolisation of celebrities such as elite athletes may arise from a cultural dimension known as Power Distance Beliefs (PDB) which is the extent of power disparity that people in a specific culture expect and accept (Oyserman, 2006). Winterich, Gangwar and Grewal (2018) state that individuals with higher power statuses, such as celebrities, rank higher in social hierarchies and so PDB may induce differential levels of value assigned to celebrities. It has been suggested that PDB influences the general public to listen to and respect the opinions of powerful figures (Zandpour, Campos, Catalano, Chang, Cho, & Jiang, 1994) such as elite athletes with celebrity status.

Previous research has found that male high school and collegiate athletes are often seen as popular and well-respected, resulting in higher social status (Holland & Andre, 1994; Shavers, Baghurst & Finkelstein, 2015; Smith & Hattery, 2006). Non-athletic friends of male athletes can also benefit from heightened social status and perceived power (Eckert, 1989). Male high school and collegiate athletes gain access to benefits and have higher perceived privileges resulting from their heightened social status as an athlete on school and college campuses (Shavers, Baghurst & Finkelstein, 2015; Smith & Hattery, 2006) and some are given the status of celebrity which brings attention and popularity. This then influences the benefits, treatment, and privileges they receive (Pappas, 2012). Heightened sense of power in male athletes can then lead to heightened perceived power over women and others people around them (Finkelstein, Baghurst, & Shavers, 2015; Shavers, Baghurst & Finkelstein, 2015), and higher risk-taking (Finkelstein, Baghurst, & Shavers, 2015; Pappas, 2012; Shavers, Baghurst & Finkelstein, 2015).

Perceived athlete power status can be intensified by media attention (Jackson & Davis, 2000) and both collegiate and elite professional athletes can be worshipped by fans who show commitment to them (Brown, 2014). This may offer an explanation as to why women are often

blamed in cases of sexual assault or when athletes fail to perform well when playing their sport (Nelson, 2018). Female attention can be considered a sexual advantage for heterosexual male athletes with high ranking social status and many male athletes believe that they are more easily able to have sex with women because females pursue athletes in social situations (Pappas, 2012). Shavers, Baghurst and Finkelstein (2015) found from interviews with many of the athlete participants that they viewed women as sexual objects, that they would distance themselves from women once they had had sex with them, with this sexual activity often becoming a competition amongst them and their teammates. Finkelstein, Baghurst and Shavers (2015) found similar responses as they explain that athletes would share women between players, felt they could get away with what they want, and would have women offering sex with them just because of their athletic status. This can blur the lines of sexual consent, making it difficult for male athletes to manage their own behaviour and differentiate between consent and coercion (Pappas, 2012).

On account of the potential that athletes have to possess a heightened perceived sense of power, it is essential that this aspect of athletic involvement is examined further as a predictor of elite athlete risky behaviour. Although there is a significant amount of literature which suggests that heightened sense of power can contribute to athlete risky behaviours, this effect should also be compared with individuals within the general population who also have a heightened perceived sense of power. It could be argued that individual within the general population who are in positions of power within their careers or socially may undergo similar experiences with regards to risky behaviour. In doing so, this could offer an insight into whether athlete-specific environments, such as the sporting environment and potential celebrity athlete status, can have more of an impact on risky behaviour than individuals in the general population who have a heightened perceived sense of power in other environments.

2.3.4 Masculinity and Aggression

Aggression has been described by Baron and Richardson (1994) as a behaviour with the goal of harming or injuring another person who attempts to avoid such treatment. Kuin, Masthoff, Kramer and Scherder (2015) found that aggression, both reactive and proactive, was positively correlated with risky decision making and risk taking behaviour. They also found that those exposed to aggressive situations are more likely to be involved in future instances of aggressive behaviour and are less likely to avoid risky situations. This may result in higher rate

of engagement in future situations of potential conflict because they possess a lesser urge than others to avoid such risky situations (Prehn, Schlagenhaut, Schulze, Berger, Vohs, Fleischer, Hauenstein, Keiper, Domes & Herpertz, 2013).

It has been suggested that in athletes, the competitive nature of sport can result in aggressive and risky behaviours (Nucci & Kim, 2005). One theory which could be used to explain athlete violent and aggression behaviour, particularly in contact sports, is the social learning theory as athletes are taught to engage in aggression in order to be successful in their sport (Leal, Gertz & Piquero, 2015). However, Grange and Kerr (2011) found that athletes viewed the physical risk involved in on and off field aggression differently and distinguished a boundary that is present between them. Additionally, it has been argued that athlete aggression and violence towards others does not differ from violence which is demonstrated by male non-athletes (Kane & Disch, 1993), and that it is a product of society which historically endorses male dominance (Crosset, 1999).

In Western cultures, risk taking is typically recognised as a masculine characteristic (Meier-Pesti & Penz, 2008). It has been suggested that male groups, such as sports teams, can adopt masculine behaviours such as competitiveness and aggressive behaviour, whilst rejecting characteristics which are commonly viewed as feminine (Connell & Messerschmidt, 2005). Violence and other like risky behaviours affirm the athlete's identity and self-perception, strengthens bonds with teammates, and preserves powerful status over females and subordinate males (Kreager, 2007). Eder, Evans and Parker (1997) found that young male footballers and wrestlers can form masculine identities, and they observed the formation of hierarchies of social status; intimidation of other individuals was related to higher social ranking, and submissive behaviours were related to lower social ranking. The masculine social structure was established via reactions to insults and physical altercations. It was reported that coaches attempted to discourage confrontational behaviour from going beyond the sporting context into off-field settings, but this was done so without success.

It has been suggested that male athlete performance in sport is an indicator of masculinity and therefore professional male athletes are subject to a culture of hegemonic masculinity (Connell & Messerschmidt, 2005). However, female athletes, despite being in a sporting environment, tend to actively retain or increase their feminine characteristics (Knifsend & Graham, 2012; Malcom, 2003). Coakley (2007) states that participation in sports reinforces gender differences, with male domination often being rewarded. Kimmel and Davis (2011) also argue that male superiority and a suppression of characteristics, such as compassion

and empathy for others, can arise from the masculine culture of entitlement. Success with violence and masculine identities which are portrayed within sports can extend beyond the sporting context to off-field contexts (Crosset, 1999; Kreager, 2007; Pappas, McKenry & Catlett, 2004), and can be reinforced as a means of maintaining peer status (Akers, 1998; Warr, 2002). Sporting culture often celebrates masculinity and traits associated with it, such as strength and power over females and more feminine males (Connell & Messerschmidt, 2005; Crosset, 1999; Eder, Evans, and Parker, 1997; Kreager, 2007; Pappas et al., 2004).

In recent years there has been an increased interest in the crimes of National Football League (NFL) players, particularly due to recent cases in the media such as the Ray Rice domestic violence incident mentioned earlier (see Chapter One). Leal et al. (2015) stated that although media reports tend to portray the NFL as having a violence problem, there is little empirical research to support these claims. One peer-reviewed article found that violence rates of NFL players were actually less than half the general population rate (Blumstein & Benedict, 1999). With the abundance of media reports regarding NFL player violence and few peer-reviewed studies on the topic, Leal et al. (2015) argued that it is understandable that the public perceives the NFL to have a violence problem. When comparing the arrest rates of NFL players and the general population in the U.S. between 2000 and 2013, Leal et al. (2015) found that the general population had a higher arrest rate for most crime types. This was with the exception of violent crime which was higher in NFL players especially between 2004 and 2008. This had since decreased but was still higher than the general population. Notably, however, there were some issues surrounding the sources of data used and requires further research to corroborate these findings.

Further research into comparisons between athletes and the general population needs to be conducted to examine whether levels of masculinity and aggression differ significantly between these groups. Additionally, it would be valuable to investigate whether masculinity and aggression can differ between sport type, whether risk taking correlates with aggression and masculinity, and if and how this differs between athletes and the general population.

2.3.5 Psychopathy

Psychopathy is a disorder which has been found to be closely associated with criminal behaviour (Swogger, Walsh, Lejuez, & Kosson, 2010), violent crime, non-violent crime, and recidivism (Leistico, Salekin, DeCoster & Rogers, 2008). A number of definitions for

psychopathy have suggested a link between psychopathy and risk taking, sensation-seeking, recklessness, and impulsivity (Hare, 2003; Lykken, 1995). Jones and Paulhus (2011) stated that individuals with increased psychopathy traits tend to engage in higher risk taking and are more impulsive. The Dark Triad, which includes psychopathy, narcissism, and Machiavellianism, has been found to be associated with risky behaviours in the general population (Djeriouat & Trémolière, 2014; Egan, Hughes & Palmer, 2015; Malasza & Ostszewski, 2016). Furthermore, it has been found that male athletes scored higher than females and non-athletes for psychopathy using the Dark Triad (Ueno, Shimotsukasa, Suyama & Oshio, 2017; Vaughan, Madigan, Carter & Nicholls, 2019). Athletes who engaged in competitive sports also scored higher for the dark triad than amateur athletes (González-Hernández, Cuevas-Campos, Tovar-Gálvez and Melguizo-Rodríguez, 2020; Ueno et al., 2017; Vaughan Carter, Cockroft & Maggionni., 2018).

In the general population, it has been found that individuals who are psychopaths and frequently engage in antisocial behaviours experience fewer emotional responses when viewing unpleasant pictures (Blair, Mitchell & Blair, 2005; Frick & White, 2008). Stanger, Kavussanu, Willoughby and Ring (2013) investigated whether this same result would be present within an athlete sample. They found that psychopathy was associated with lesser emotional responses to unpleasant images, but that there was no significant association with these responses and antisocial behaviour. However, the study harboured some limitations relating to the types of pictures being used, which were team sport images.

Although an emerging field of research, there has been research which has provided support for a link between psychopathy and risk taking in the athlete population. Nicholls, Madigan, Backhouse and Levy (2017) found that psychopathy positively correlated with attitudes to doping behaviour in athletes. Additionally, González-Hernández et al. (2020) reported that the psychopathic trait has been found to have positive significant associations with feelings of being a loser, and negative significant associations with satisfaction of sport results. Studies involving high-level athletes have found that they have low empathy (Kavussanu, 2019; Stanger, Kavussanu, McIntyre & Ring, 2016), and can have an absence of emotional expression (Matsumoto, Olide, Schug, Willingham & Callan, 2009) when they are too focused on their achievements, outcomes and results of their sport. González-Hernández et al. (2020) explains that when athletes experience difficulties in managing their emotions, this can exaggerate feelings of not being able to achieve their competitive commitments. This can lead to less focus from the athlete on the satisfaction of fighting to achieve their goals in

addition to distancing themselves from social relationships and the athletic environment. This can then result in, for example, seclusion and involvement in conflicts (Chan, Gerstein, Kinsey & Fung., 2018). These works highlights the emerging link between risk taking and psychopathy, with this association now emerging beyond criminal samples (Buckholtz, Treadway, Cowan, Woodward, Benning, Li, Ansari, Baldwin, Schwartzman, Shelby, Smith, Cole, Kessler & Zald, 2010).

However, Swogger et al. (2010) explained that it is difficult to identify whether links between psychopathy and risk taking are specific to psychopathy. There are often comorbidities between psychopathy and antisocial personality disorder, and alcohol and drug use disorders, all for which there is evidence to suggest that these disorders have links with inclinations to engaging in activities which are risky and exciting (Grau & Ortet, 1999; Lang & Belenko, 2001; Quay, 1965; Zuckerman, 1994). Therefore, the extent of the associations between psychopathy and risk taking behaviours is hitherto unclear, and can be further problematic due to the ambiguity surrounding the nature of risky behaviour (Swogger et al., 2010).

Due to the current lack of research into athlete psychopathy and risk taking, this area of research needs to be further developed. By investigating the levels of psychopathy in the athlete population, it may be possible to examine the influence that different levels of psychopathy can have on athlete risk taking behaviour. Based on the literature it can be assumed that athletes who score higher for psychopathy will be more likely to engage in risky behaviour due to their lack of concern for others (i.e. possible victims) and their lack of consideration for moral standards within society. Possible links regarding levels of psychopathy and risk-taking in the athlete and general populations warrant further examination.

2.3.6 Sensation-Seeking and Impulsivity

Impulsivity can have a large influence on risk taking behaviour, and in particular, risky sexual behaviour (Sher & Trull, 1994). Zietsch, Verweij, Bailey, Wright, and Martin (2010) found significant positive correlations between risky sexual behaviour and each personality trait measured in Eysenck Personality Questionnaire (EPQ-R) shortened version: Impulsivity, Extraversion, Psychoticism, and Neuroticism. In some cases, risky sexual behaviour can occur due to seeking excitement, but this can also arise when an individual is overcome with negative emotions. It has been suggested that individuals who are prone to acting impulsively when presented with negative emotions and also those who seek excitement from novel situations

will participate in higher risk sexual behaviours (Deckman & DeWall, 2011). Ulleberg and Rundmo (2003) found that individuals who engaged in risky behaviour when driving scored higher on sensation-seeking and aggression. These participants also scored higher on normlessness, which suggests that they have lower consideration about what behaviours are socially unacceptable and this is reflected in their violation of traffic rules. Deckman and DeWall (2011) report that sensation-seeking predicted risky sexual behaviour whether substance abuse was present or not.

Romer (2010) explained that some of the riskiest forms of behaviour can be attributed to impulsivity traits which are present during early development and adolescence. Further, Romer reported that sensation-seeking rises significantly during adolescence and can pose a risk to healthy development. An explanation for this was adolescents having limited experiences with novel adult behaviour. However, this does not offer explanation for why older individuals may continue to exhibit higher sensation-seeking tendencies, and therefore engage in higher risk taking.

Previous research has suggested that sensation-seekers tend to participate in sport (Cross, Basten, Hendrick, Kristofic & Schaffer, 1998; Mastroleo, Scaglione, Mallett & Turrisi, 2013; Yusko, Buckman, White & Pandina, 2008; Zuckerman, 1983). Individuals in sports differ essentially from one another in the degree to which they are willing and able to make risky decisions, and that risky decisions can be explained by differences in personality traits (Raab & Johnson, 2004). Mastroleo, Scaglione, Mallett and Turrisi (2013) researched how personality differences, such as sensation-seeking, and impulsivity, can affect levels of drinking in college athletes and non-athletes. They found that athletes drank significantly more than non-athletes and that this was related to sensation-seeking and risk-taking. Sensation-seeking was recognised as a significant negotiator of athletic status and situations influenced by drinking. Yusko, Buckman, White and Pandina (2008) found that sensation-seeking was more prominent with athlete drinking outcomes when compared to non-athletes. It may be the case that not only do they engage in higher risk drinking, but they may also be seeking out more exciting situations for increased stimulation and as a means of social engagement. Considering that the majority of college athletes are highly competitive individuals, it would appear that they may have to seek out excitement and stimuli at an elevated level which matches their personal characteristics. The work of Kalichman, Cain, Zweben and Swain (2003) supports this as they assert that sensation-seeking is associated with stronger expectancies that

alcohol improves and enhances sexual experiences, which often subsequently leads to unprotected sex.

Zuckerman (1983) notes the tendency for sensation-seekers to participate in contact sports. It is thought that the sensation-seeking that these student athletes gain from contact sports translates into more liberal attitudes towards risk taking and are therefore more likely to engage in gambling activity. This level of permissiveness towards taking risks was found to be greater in football players when compared with basketball players. These differences are present in student athletes who specify that they have gambled on sporting events and those who have not; student athletes who participated in contact sports were more likely to have gambled on sporting events than students who partake in noncontact sports. As football is a more physical sport it provides evidence for Zuckerman's premise concerning high sensation-seeking individuals (Cross, Basten, Hendrick, Kristofic & Schaffer, 1998). The findings suggest that athletes who engage in contact sports are higher sensation-seekers and because of this they are more likely to engage in gambling behaviours to fulfil their sensation-seeking tendencies. Zuckerman (1983) suggests that sensation-seekers who engage in contact sports can have a more liberal approach to risk-taking. From these findings it can be theorised that they are more likely to engage in higher general risk-taking behaviours than non-contact sport athletes, not just gambling.

Further research into levels of impulsivity and sensation-seeking, including sexual sensation-seeking, of the athlete population, alongside other personality traits, could be investigated further. It may be possible to identify whether athletes have higher levels of impulsivity, sensation-seeking, and sexual sensation-seeking when compared to the general population. Additionally, it may be possible to develop a further understanding into if and how impulsivity and sensation-seeking are associated with different types of risky behaviours, and whether these associations differ between groups.

2.3.7 Attitudinal Differences

Attitudes can be defined by the ways in which an individual evaluates something with some extent of favour or disfavour, conveyed in cognitive, affective, and behavioural responses (Iversen, 2004). Lee and Tseng (2015) highlighted that there is a lack of literature into the relationship between personality, risk-taking attitudes and adventurous behaviour. They found that recreationists who engaged in adventurous behaviours such as white-water rafting and

scuba diving had attitudes which significantly and positively influenced their involvement in these types of activities. Their research indicates that individuals who had more liberal attitudes towards risk taking and adventurous behaviours were more likely to be involved in activities which include higher risk taking and are more adventurous. This would suggest that athletes with more liberal attitudes to risk taking behaviours are more likely to actually engage in them than those with more conservative attitudes.

Cross, Basten, Hendrick, Kristofic and Schaffer (1998) examined attitudinal differences regarding risk taking among college athletes who engage in gambling and those who do not. The findings indicated that those who gamble are more likely to have a heightened positive and supportive attitude to risk taking behaviour than those who do not gamble. The study revealed that male football and basketball players who engage in gambling on college sports had considerably different attitudes towards risk-taking behaviour than their peers who were not involved in gambling. Although it is not a surprising that athletes who gamble indicate more permissive attitudes towards risk taking behaviours, the findings do show that attitudinal differences are linked with risk taking behaviour.

Fair play is the term used when referring to rules, behavioural guidelines, and values inherent of sport, including respect for opposition, equality, and support (Arnold, 1994, 2001). It has been found that fair play attitudes were associated with increased prosocial on-field behaviour (Stephens & Bredemeier, 1996) and fewer instances of antisocial behaviour (Rutten, Deković, Stams, Schuengel, Hoeksma, & Biesta, 2008). Contrastingly, negative attitudes towards fair play attitudes have been found to be associated with increased aggressive behaviours (Junge, Dvorak, Rösch, Graf-Baumann, Chomiak, & Peterson, 2000).

Willingness to engage in athlete risk taking has received little attention (Crust & Keegan, 2010). Bull, Shambrook, James and Brooks (2005) investigated mental toughness of English cricket players and named tough character, attitudes and thinking as important when dealing with external pressures. It was found that when cricketers were willing to take risks, it extended from taking risks within gameplay to within their careers. Results suggested that high achievers tend to seek out challenging and risky situation more than low achievers that tend to avoid these situations (Crust & Keegan, 2010). When making decisions, individuals must make a choice between sticking with familiar situations, and facing new situations, which may be a situation which is riskier but has the potential to be more rewarding (Maddi, 2004). Crust and Keegan (2010) explained that although choosing familiar paths can be comforting and lead to less anxiety, this can result in missing opportunities for growth. Individuals who are hardy tend

to be future-oriented who seek out challenges and risky situations rather than avoiding anxiety-evoking situations. Based on this research it may be possible that these attitudes to risk taking behaviours on-field can transfer to off-field situations.

Llewellyn and Sanchez (2008) identified self-efficacy as a main mediator of risk taking behaviour. Consistent with the self-efficacy theory (Bandura, 1997), Llewellyn and Sanchez (2008) reported that rock climbers took more risks when they perceived themselves as capable of managing risks involved in challenging behaviours. Sports research on this topic has revealed that athletes possessing high self-efficacy were less likely to have a fear of failure, were more likely to have more challenging ambitions, and would take more premeditated risks rather than reckless risks (Kontos, 2004). As mentally tough athletes can be described as self-confident, challenge-seeking, and less anxious (Clough, Earle & Sewell, 2002; Jones, Hanton & Connaughton, 2007) an association between risk taking and attitude can be theorised. It is important to explore attitudinal differences further as different attitudes may influence athlete risky behaviours, such as risky sexual behaviour.

2.3.8 Substance Abuse

Research suggests that heavy alcohol use and binge drinking can serve as a risk factor for risky or antisocial behaviours in adolescent athletes (Ford, 2007; Kwan et al., 2014; Veliz, Boyd & McCabe, 2015). Yusko, Buckman, White and Pandina (2008) found that male student athletes were at high risk for heavy drinking and the use of performance-enhancing drugs. Notably, this has been found to differ depending on various sporting factors. Heightened rates of alcohol use have been found in those who play contact sports when compared to those in non-contact sports (Veliz, Boyd & McCabe, 2015). Additionally, elevated alcohol use has also been found in those who have leadership status within sports teams when compared to other members within the team, also suffering more adverse effects from their alcohol use (Leichliter, Meilman, Presley & Cashin, 1998). Furthermore, Yusko, Buckman, White and Pandina (2008) found that levels of heavy alcohol use and the use of performance-enhancing drugs considerably fluctuated in both male and female student athletes depending on whether their sport was on- or off-season. The social impact of sport can also serve as both a protective and risk factor of risky behaviour in adolescent athletes (Barber, Stone & Eccles, 2010; Fredricks & Eccles, 2005; Haynie, 2002). Vest and Simpkins (2013) found that adolescent athletes were more likely to use alcohol if their teammates engaged in heavy alcohol use, but that having

teammates who engaged in low alcohol use served as a protective factor against alcohol use. Additionally, they found that teammates and friends who engaged in sports had more of an influence on their drinking behaviour than their non-athlete friends.

O'Brien and Lyons (2000) suggest that college student athletes engage in riskier lifestyle behaviour patterns and choices when compared with the lifestyles of non-athletes, including higher alcohol consumption, driving under the influence of alcohol, and riding in a car whilst the driver is intoxicated. Naughton (1996) also found that student athletes reported a higher rate of binge-drinking than non-athletes. Previous research has attributed this to sensation-seeking tendencies. Yusko, Buckman, White and Pandina (2008) found that sensation-seeking was more prominent in male athlete drinking outcomes than non-athletes. It could be that when drinking alcohol athletes seek out more exciting situations and increased stimulation as Kalichman, Cain, Zweben and Swain (2003) reported that sensation-seeking is often associated with stronger expectancies that alcohol enhances sexual experiences. Mastroleo, Scaglione, Mallett and Turrisi (2013) also found that athletes drank significantly more than non-athletes due to heightened sensation-seeking and risk-taking tendencies.

Heavy alcohol use has been suggested as a predictor of other risk-taking behaviours. It has been reported that there is a relationship between heavy alcohol consumption and risky sexual behaviour, such as unprotected sex, in college students. It was found that a power imbalance during sex after heavy drinking may mean that females rely on the cooperation of their male partner to use condoms rather than negotiating safe sex themselves and that this can also lead to females being unable to refuse coercive sexual situations (Scott-Sheldon, Carey & Carey, 2008). It has also been found that heavy alcohol and marijuana use, as well as violence within relationships, are predictors of higher risk sexual behaviour. This may be explained by the use of certain substances disinhibiting behaviour (Shorey, Fite, Choi, Cohen, Stuart & Temple, 2015). Alcohol consumption has also been found to be positively associated with sexual violence (Kantor, 1993; Koss & Gaines, 1993). Crossett (1999) states that the high coincidence rates between athlete sexual offending and heavy alcohol use implies that alcohol can potentially blur the lines of sexual consent and can even act as a way for offending athletes to intentionally distance themselves from taking responsibility for non-consensual acts. However, Huang, Jacobs and Derevensky (2010) studied the prevalence of risky sexual behaviour, such as unprotected sex and number of sexual partners, in relation to gambling behaviours and heavy drinking among college athletes. Although, both male and female

athletes reported heightened sexual risk taking whilst engaging in heavy alcohol consumption, the effects of alcohol were twice as large in female athletes than male athletes.

Male and female athletes and fans have been found to engage in high risk alcohol consumption, particularly contact and team sports (Bedendo, Opaleye, Andrade & Noto, 2013; Lawson & Evans, 1992; Merlo, Hong & Cottler, 2010; O'Farrell, Allwright, Kenny, Roddy & Eldin, 2010). Merlo, Hong and Cottler (2010) reported that in the U.S. around three times the amount of alcohol related arrests occurred on college football game days when compared to non-game days and holidays. In Australia, football players were found to consume 4 to 9 times more alcohol than the recommended intake per drinking session (Lawson & Evans, 1992). Similar results have been reported with footballers in Brazil (Bedendo et al., 2013) and in Ireland (O'Farrell et al., 2010). Although a number of alcohol management policies have been implemented by sporting clubs (Lenk, Toomey, Erickson, Kilian, Nelson & Fabian, 2010), many clubs and venues have failed to implement these interventions consistently (Lenk et al., 2010; Lyne & Galloway, 2012).

Further investigation into the effects of alcohol consumption on varying types of athlete risky behaviour is required, whilst also accounting for gender differences. Substance abuse has been identified as both a predictor of risky behaviour in addition to a risky behaviour itself. Consequently, substance use expectancies in the athlete population warrants further exploration, in addition to examining how substance abuse can influence other risky behaviours.

2.3.9 Peer Influence and Sports Culture

Peers play a vital role in the learning of behaviour, particularly in adolescent years where individuals are conscious of their status and image (Coleman, 1961). Considering that many types of athletes engage in team sports and/or train in teams, it is important to consider how peer influences can contribute towards athlete risky behaviour. In addition to teammates, there can also be the influences of non-athlete peers. High school and collegiate male athletes are often well-respected and recognised by peers and the local community as being popular (Holland & Andre, 1994). Eckert (1989) explains that non-athletic friends of athletes who are popular also tend to share higher social status and gain access to more exclusive peer groups.

Notably, Schwartz and Nogrady (1996) suggest that group affiliation, such as within a sports team, can be less influential than the attitudes of the individual members of the group. Therefore, suggests that the more peer support for a particular behaviour, the more likely other members of the group are to engage in that behaviour, rather than behaviours being influenced simply through group membership.

The social impact of sport can provide opportunities for the manifestation of both prosocial and antisocial behaviours in athletes (Kavussanu, 2008). Young athletes can display involvement in high rates of both prosocial and antisocial behaviours (Shields, Bredemeier, LaVoi & Power, 2005), and so through the investigation of both types of behaviours, a deeper understanding of the social impact of sport can be developed (Kavussanu & Boardly, 2009). Previous research has found that social aspects of sport can act as both a protective and risk factor of risky behaviour in adolescent athletes (e.g. Barber, Stone & Eccles, 2010; Fredricks & Eccles, 2005; Haynie, 2002). Vets and Simpkins (2013) found that teammates who were involved in low alcohol consumption served as a protective factor from heavy alcohol use. However, they also found that teammates who engaged in heavy alcohol use were more likely to have an influence on athletes to also engage in increased alcohol consumption. Furthermore, their results suggest that teammates and athletic peers can have more of an influence on drinking behaviours than non-athlete friends. Athletes who exhibit risky behaviours which lack inhibitory control put their teammates at risk of engaging in those same risky behaviours (Blomfield & Barber, 2010).

The coach-athlete relationship has also been reported to play a vital role in the performance of an athlete and their development as a person (Jowett & Cockerill, 2003). They can act as role models and mentors (Beam, Chen & Greenberger, 2002), and can have an influence on athlete antisocial behaviours (Nucci & Kim, 2005). Supportive relationships between coaches and athletes have been found to be associated with increased prosocial behaviour and reduced antisocial behaviour of adolescent athletes (Rutten, Stams, Biesta, Schuengel, Dirks & Hoeksma, 2007).

It may be assumed that athletes are conditioned to follow rules and societal norms, with the athletic environment allowing athletes to develop positive relationships in a structured environment (Eitzen, 2014). Contrastingly, it has also been speculated whether these environments can promote antisocial behaviour rather than good sportsmanship and discipline (Kreager, 2007). It can often be the case that athletes create and maintain their own set of social

norms and rules. An example of this derives from Kreager (2007) who states that there is a widespread negative view towards performance-enhancing drugs in the general population. However, the use of these substances can be modelled and reinforced within the athlete population, leading to a wide acceptance of their use as a means of improving athletic performance, despite professional sporting body regulations. The use of performance-enhancing drugs can also appeal to athletes due to appearance-enhancing properties (Hayes, 2014), which could be attributed to conformity within the masculine sporting environment.

Previous research in the field has often identified sport culture and masculine athlete environments to be a large contributing factor towards risky behaviour of male athletes (Coakley, 2007; Crosset, 1999; Ford, 2007; Messner & Sabo, 1994; Nelson, 1994; Sabo & Runfola, 1980; Warshaw, 1988). Eitzen (2014) states that a culture can develop between athletes when intense bonds are established, which can then influence risky behaviours. This type of culture can often be referred to as “jock culture” (Crosset, 1999). Athletes can be influenced and taught from a young age to exude masculinity, including disregarding pain and injury, projecting strength and toughness, exhibiting typically masculine attitudes and characteristics, displaying fearlessness, and asserting dominance (Crosset, 1999). These masculinities can then result in heightened sense of entitlement and hyper-masculinity (Eitzen, 2014).

Messner and Sabo (1994) suggest that these masculine environments can result in male athletes developing a higher intolerance of others and a heightened susceptibility to engaging in offending and risky behaviours. Curry (1998) investigated bar violence of athletes and found that peers can provoke violence between team members and individuals perceived as outsiders to witness group members’ ability to fight. Such instances can further distance athletes from non-athletes who have not experienced the same sacrifices as those involved in sport (Messner, 2002). Kreager (2007) suggests that violence can create a bond between teammates through exclusive membership to the group and are required to be involved in situations, such as aggressive and risky behaviours, which could jeopardise their social status.

Additionally, it has been reported that antisocial behaviours within the collegiate athlete population can be largely attributed to over-conformity to sport and/or team norms and values (Hughes & Coakley, 1991). Team sports in particular can influence athletes to conform to group norms. Collegiate athletes tend to regard over-conformity as necessary for success and acceptance within the team and so will be actively involved in behaviours which satisfy

coaches and teammates (Hughes & Coakley, 1991). Warr (2002) states that team sports can influence team members to conform to norms due to pressures of the rules of group loyalty, and lack of conformity can lead to ridicule from peers. Demeaning language can be used to threaten social status and masculinity within the group and so athletes can engage in risky behaviours to save face. These types of conflicts can lead to violence becoming an acceptable way of conflict resolution (Goffman, 1967; Kreager, 2007).

Furthermore, older teammates can influence less experienced teammates to display heightened masculinity, leading to the maintenance of long-standing team norms (Crosset, 1999). An example of this can derive from “hazing” or initiation rituals (Polk, 1999; Waldron & Kowalski, 2009). These rituals can involve acts which are challenging, violent and humiliating, and are common practices initiated by established members of the team and experienced by new, less experienced members (Waldron & Kowalski, 2009). They can influence newer members to conform to behavioural norms of the team (Sabo, 2004), and can maintain the hierarchical structure of the team depending on perceived superiority or inferiority (Bryshun & Young 1999; Sabo, 2004; Trota & Johnson, 2004). In Connecticut, a high school wrestler was tied up and sodomised with a plastic knife (Farrey, 2002). Waldron, Lynne and Krane (2011) explain that this is not limited to the young athlete population but is entrenched in the sporting culture. Farrey (2002) described an incident in which New Orleans Saints American Football players were injured when running past teammates who were hitting them with bags filled with coins. Athletes have died in more extreme cases due to hazing incidents; in 1990 Nicholas Haben, a Western Illinois University lacrosse player died during an alcohol-related activity (Farrey, 2002).

Despite the amount of research which supports the notion that peer influence and sport culture can influence risky behaviour in athletes, the majority of this research has focused on adolescent athletes. It has been suggested that risk-taking is more common in adolescents and young adults, usually decreasing with age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds et al., 2019), and that peer influence can play a central role in adolescent behaviours (Gardener & Steinberg, 2005). Considering that the previous research focuses primarily on adolescent athletes, further research to investigate these effects in adult elite athletes is essential. It may also be beneficial to develop a further understanding of aspects which can serve as protective factors against the influences of peers and the sports environment through qualitative research.

2.3.10 Differences between Sports

There are cultures specific to different sports which need to be considered. For example, rugby and other team sports are viewed as a very masculine sport in which groups of males may engage in certain behaviours in order to prove their masculinity. However, sports such as tennis and other individual sports do not have the same sporting stereotypes. Previous research has investigated the symbolic and often physical violence that groups of males engage in within and around sporting contexts (Sparkes, Partington, & Brown, 2007). Aggression, self-harm, and a variety of risk-taking behaviours have been associated with these environments (Grossbard, Geisner, Mastroleo, Kilmer, Turrisi & Larimer, 2009; Murnen & Kohlman, 2007).

Previous research has noted differences between contact and non-contact sport. For example, heightened rates of alcohol use have been found in those who play contact sports when compared to those in non-contact sports (Veliz, Boyd & McCabe, 2015). Furthermore, Gage (2008) compared collegiate American Football players with collegiate tennis players and track and field athletes, and also non-athlete males. The results showed that American football athletes scored significantly higher on hyper-masculinity scales, had lower attitudes towards women, and displayed more sexual aggression than the athletes in non-contact sports and non-athlete males. The findings suggest that the American Football athlete group may be more likely to engage in risky behaviours surrounding masculinity, and sexual and aggressive behaviours. Additionally, Kreager (2007) found a strong relationship between contact sports and violence, stating that football players and wrestlers, as opposed to baseball, basketball, and tennis players, are significantly more likely to engage in a serious fight, as well as their male friends.

Aggression and perceived superiority can be prevalent features of some sporting cultures, leading to increased violent behaviour in the athlete population (Kreager, 2007). However, there can be variations in individual violence dependent on sport. For example, contact sports typically described as hyper-masculine, such as those which involve bodily contact and intentional injury to another person, create an environment where violence is viewed as acceptable, proves masculinity, and allows for maintenance of masculine characteristics (Connell, 1995; Crosset, 1999; Messner, 1992). In these cases, violence is coupled with success and higher social status, conveying the idealistic image of what it means to be a male (Kreager, 2007). Elite athletes, especially those who partake in contact sports, are

respected for their strength, power, and determination, and are therefore rewarded with prestigious status and are rewarded with access to exclusive groups which then isolate athletes from other groups which can alter stereotypical gender concepts (Kreager, 2007). Athletes involved in violent sports have reported that athletic involvement has influenced their off-field behaviour (Coakley, 2007). Davis and Smith (2009) state that on-field success can be attributed to the cultural norms surrounding male aggression and power. These characteristics can then lead to off-field risky behaviours, such as sexual violence (Gage, 2008).

Connell and Messerschmidt (2005) claim that contact sports are consistently portrayed as opportunities for males to adopt hyper-masculine identities and can promote violent and homophobic behaviour. Whilst aggression can be rejected by the general population for its unconventionality with societal norms, it can be accepted with regards to athletes, as aggression is often an element of on-field success. As a result of this, athletes may perceive aggression and violence as acceptable behaviours when attempting to access rewards and succeed in their goals off-field (Kreager, 2007).

However, as with other research into the potential predictors of athlete risky behaviour, the majority of previous research into risky behaviours within different sport has focused on adolescent and collegiate athletes. Again, it has been suggested that risk-taking is more common in adolescents and young adults, usually decreasing with age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds et al., 2019), and peer influence can play a key role in adolescent behaviours (Gardener & Steinberg, 2005). Further research should be conducted to identify whether these same environmental and sporting influences occur within older elite athlete groups. Qualitative research may be most effective when developing a further understanding how the cultures, social norms, and natures of different sports can have an influence elite athlete risky behaviour.

2.4 Aims and objectives

The previous literature regarding athlete risky behaviour generally focuses on high school, collegiate, and amateur athletes. Literature which involves athletes is largely based on lifestyle and injuries which can have an effect on on-field performance. Despite professional athletes living in the public eye and having a large influence on the general population, there is a lack of understanding regarding the level of risky behaviours which can often be exhibited

by this population. Therefore, the overall aim of the thesis is to explore risky behaviour of athletes through the exploration of common risky behaviour themes, establishing whether athletes actually engage in more risk-taking, and investigating the influences of athlete risk-taking. This will be achieved through three key objectives:

- a) To understand how risky behaviours can manifest and occur in the athlete population.
- b) To determine whether athletes are more likely to be involved in risky behaviour than the general population.
- c) To identify the potential predictors and contributing factors of risky behaviour in the athlete population.

To fulfil the research aims and objectives, the thesis incorporates three consecutive empirical chapters, using mixed methods of both quantitative and qualitative research methods. These chapters serve to explore the offending and risky behaviours of athletes and promote an improved understanding of how and why these behaviours can transpire within the athlete population. The three empirical studies are briefly outlined in the following chapter, including the philosophical approach and methodological considerations.

CHAPTER THREE

The Empirical Chapters

3.1 Introduction

The main aim of the research was to explore the issues surrounding athlete risky behaviour. Athletes are a unique population type. They are immersed in competitive environments and tend to spend copious amounts of time training, often with teammates or

peers. There is evidence to suggest that athletes engage in particular risky behaviours (e.g. alcohol use) at a heightened rate compared to their non-athletic peers. This is often attributed to specific personal characteristics (e.g. sensation-seeking) or environmental factors (e.g. contact vs non-contact sport). However, prior work has failed to explore a wide range of influences as a whole and the majority has been quantitative in nature, limiting the emergence of novel findings in the modern world.

3.2 Pragmatic Research Philosophy

Due to the exploratory nature of the thesis, a pragmatic research philosophy was adopted. Pragmatists do not view the world as a complete unity, but rather that the truth is currently in action (Žukauskas, Vveinhardt & Andriukaitienė, 2018). It highlights practical problems experienced by individuals (Giacobbi, Poczwadowski & Hager, 2005) and considers practical thinking and application of research (Žukauskas, Vveinhardt & Andriukaitienė, 2018). Pragmatic researchers are sensitive to social, political, and historical contexts, and consider the ethical and social issues to be of importance throughout the research (Giacobbi, Poczwadowski & Hager, 2005). With pragmatism, researchers have a freedom of choice regarding the methods and procedures used to suit their scientific research aims, often using pluralistic methods.

3.3 Methodological Considerations

3.3.1 Use of Mixed Methods

For the current work, mixed methods were used to explore the concept of athletic effects on risk-taking, using both deductive and inductive approaches. Mixed methods research can be beneficial to sport researchers who consider that quantitative and qualitative methods can be successfully combined (Moran, James & Kirby, 2011). There are a number of advantages which have been proposed for conducting mixed methods research (Doyle, Brady & Byrne, 2009; Hagger & Chatzisarantis, 2011; Hesse-Biber, 2010; Horn, 2011; Moran, James & Kirby, 2011; Sparkes, 2015), which are as follows. Firstly, the weaknesses that quantitative and

qualitative methods harbour can be counteracted with the complementary strengths of the opposing method, which can provide strength and more accurate interpretations of the data. Secondly, triangulation allows for greater validity as corroboration can be obtained between data types. Next, combining methods can allow for a more thorough understanding of the phenomenon, whilst also generating novel insights. Furthermore, qualitative methods can aid in the generation of hypotheses which can be tested through the use of quantitative methods. Using both methods can also aid in the development of new theory and quantitative psychometric tests. Moreover, quantitative methods can assist with sampling for qualitative methods. Finally, mixing both research methods is beneficial when attaining a representative sample with the aim of improving the generalisability of qualitative conclusions. However, mixed methods should be approached with caution and research should be conducted with a clear and logical research approach (Creswell, 2011),

3.3.2 Study One: Exploring the Offending and Risky Behaviour of Elite Athletes (Chapter Four)

The state of risky behaviour within the athlete population is presently unknown. There is currently a deficiency of reliable published statistical data and research which efficiently outlines and explores the commonly occurring offending and risky behaviours of athletes in various sports. Athletes, particularly at an elite level, can receive an abundance of both positive and negative media coverage which can reach a wide audience and have an influence on spectators. Therefore, there should be some focus on the elite athlete population.

Initial ideas were to contact and gain access to elite sports clubs in order to gather data surrounding their risky behaviours. Elite athletes, however, are notoriously difficult to reach due to a number of factors and there was the potential that participants would not disclose their historical risky behaviour entirely. Hence, exploring historical cases of risky behaviours reported in the media was a suitable option to aid in the development of an early understanding of some of the issues surrounding athlete risky behaviour. Furthermore, this initial exploratory study was conducted to inform and influence the methods used in further, more specific research in Study Two and Three of the current work.

Firstly, a positivist approach was adopted by using a search strategy to find historical cases of athlete risky behaviour. This approach was adopted to ensure the data collection process was objective. A content dictionary before coding the data dichotomously. Following this a Smallest Space Analysis (SSA) was performed. Next, an interpretivist approach was used to distinguish the behavioural themes of the SSA. Though SSA is quantitative in nature, qualitative data was collected and qualitative analysis methods were used to interpret the data and develop behaviour themes, hence both deductive and inductive data analysis approaches were used.

3.3.3 Study Two: The Predictor Characteristics of Risky Behaviour: A Comparison between Athletes and the General Population (Chapter Five)

A review of the literature revealed common characteristics associated with various athlete risky behaviours in high school, collegiate, and amateur athletes. However, this research tends to focus on only one or two of these characteristics and generally compares the findings from athletes with those of their non-athlete peers. There is a lack of literature which investigates how different personal characteristics may be associated with general risk-taking within the athlete population. By exploring athlete general risk-taking along with potential predictor characteristics of risky behaviour, and comparing the outcomes to those of the general population, the intention was to identify if and why the athlete population may be at a higher risk of engaging in risky behaviour.

Based on the literature, a number of scales were selected, and a questionnaire was constructed before being distributed to an athlete samples and the general population. A positivist approach was adopted using quantitative and deductive research methods. This was so that measurable scales could be used and findings from each population could be directly compared following the exploratory nature of Study One. The research methods used for Study Two were informed by Study One, and outcomes intended to influence the methods used within Study Three.

3.3.4 Study Three: Personal Experiences and Attitudes of Athletes regarding Athletic Involvement and Risky Behaviour (Chapter Six)

As an extension of the previous empirical chapters, a collection of first-hand personal views, attitudes and experiences of an athlete population can offer a valuable insight. Qualitative research methods were used to expand the findings of the previous quantitative studies and provides further rich, detailed information which cannot be collected through quantitative research methods. There are currently no studies of this kind where a sample of athletes have discussed their own risky behaviours and personal experiences.

An interpretivist approach was adopted through the use of qualitative semi-structured interviews. This was to understand the personal views of the athletes regarding issues which were raised during the previous study chapters, and to gain an improved understanding of the influences of risky behaviour in the sporting world. For this study, inductive data analysis was used through the use of Thematic Analysis.

CHAPTER FOUR

Study One: Exploring the Offending and Risky Behaviour of Athletes

4.1 Introduction

There are countless elite athlete cases of offending and risky behaviour reported in the media. In 2010, Mixed Martial Arts (MMA) fighter Lee Brahimi Murray-Lamrani, better known

as Lee Murray, was sentenced to 10 years in prison for his involvement in the largest bank heist in Britain, in which £53 million was stolen from Securitas in Kent in 2006 (Taylor, 2010). This sentence was eventually increased to 25 years (Pugh, 2010). Before this, he was known for being a drug dealer, being involved in violence, and for assaulting police officers (BBC News, 2010). In 2016, former Sunderland and Manchester City football player Adam Johnson was found guilty of grooming and sexual activity with a 15-year-old girl (Sims, 2016). During his trial, it was revealed that he would regularly meet other women after training (ITV News, 2016a), and he was also arrested for possession of illegal pornography, but the charges were later dropped (ITV News, 2016b). In 2017, Johnson was filmed in prison stating that he wished that he had raped his victim because he had already been convicted of sexual activity (Da Silva, 2017; Wilkinson, 2017).

These types of media reports tend to lead to the conclusion that, compared to the male general population, male athletes are more likely to engage in offending behaviours, especially violence towards women (Crosset, 1999). It could be argued that athlete violence towards others does not differ from violence demonstrated by male non-athletes (Kane & Disch, 1993), and is a product of society which historically endorses male dominance (Crosset, 1999). However, sport can often be utilised to construct and maintain masculinity (Bryson, 1987; Messner, 1988, 1990). Crosset (1999) explains that from a young age, athletes are encouraged to embrace and exude masculinity. For example, to disregard pain from injuries and training, to show others they are tough, separate and distinguish themselves from females by adopting typically male characteristics and attitudes, hiding their fear, and asserting dominance over others. They are also financially and copiously rewarded for displaying these types of masculinities (Crosset, 1999). It has been suggested that violence and masculinity within the athlete environment can increase violence towards women (Coakley, 2007; Nelson, 1994; Sabo & Runfola, 1980). It has even been claimed that sporting team environments are breeding grounds for sexual assault (Warshaw, 1988).

Benedict and Klein (1997) found that, in the USA, athletes had significantly lower conviction rates for sexual assaults compared to the rest of the male population, despite representing a much smaller proportion of the population. Although allegations of sexual assault were more likely to result in arrest or indictment when a collegiate or professional athlete was thought to be the perpetrator, athletes are much less likely to be convicted. They reported that athletes had a higher arrest rate for sexual assault at 79% compared to a national arrest rate for sexual assault of 32%, yet only 31% of arrested athletes went on to be convicted,

compared to 54% of those arrested nationally. Benedict and Klein (1997) inferred that prosecutors may feel pressure from the public to arrest high-profile figures, such as elite athletes, to demonstrate that they receive the same treatment as the general population. However, they often have the defence and resources available to them that other do not, and female victims can often be victimised in the courtroom (Benedict & Klein, 1997).

Despite athlete offending, particularly sexual violence, being regularly featured in the media, it has rarely received any focused academic research. Benedict and Klein (1997) claim that there are no databases which report whether an individual accused of a sexual offence is an athlete. To the researcher's knowledge, this statement remains correct to this day. This also seems to be the case regarding the reportage of athlete involvement in other types of offending and risky behaviour. Whilst sexual violence is an area which has received much focus, like many other offending behaviours, there are few studies which concentrate on sexual assault committed by the athlete population and offer prevention measures to deter athletes from being involved in such incidents (Benedict & Klein, 1997). Additionally, there is a lack of reliable publicised statistics, especially from outside of the United States of America, which provide information regarding the offending and conviction rates of elite professional athletes. As a result, the size of the problem is currently unknown. Without increased and consistent research into the issue, there is little that can be gained from and referred to by researchers and utilised by sporting and legal sectors with confidence.

4.2 Present Study

It is a common assumption that athletes learn how to follow societal norms, are conditioned to follow the rules, and that athletes form only positive relationships in a structured environment (Eitzen, 2014). However, there is a culture which can contribute towards deviant behaviour within sport teams; the 'jock culture' can emerge when intense bonds are formed between athletes. In this environment there can arise a sense of entitlement, hyper-masculinity, and hero worship (Eitzen, 2014). In this environment, males can learn to become intolerant of others and more susceptible to engaging in offending and risky behaviours such as violence, domestic abuse, and hate crimes, and are also less likely to become involved in long-term relationships with women (Messner & Sabo, 1994). It is often the case that the athlete

population have their own set of rules. For example, performance-enhancing drugs are generally viewed negatively in the general population, but in the athlete population this can be modelled and reinforced resulting in them being widely accepted as a means of improving athletic performance, despite being a practice which is forbidden by professional sporting bodies (Kreager, 2007). Hughes and Coakley (1991) suggests that much of the social deviance that exists within the collegiate athlete population can result from over-conformity to the norms and values of the team or sport. Through vicarious reinforcement and differential reinforcement, the collegiate athletes regarded over-conformity via participation in behaviours that satisfies coaches and teammates as a necessity for success and acceptance within the team.

Crosset, Benedict, and McDonald (1995) examined reported incidents of sexual violence in universities, through judicial and police data. They found that a significantly higher percentage of sexual assault reports were committed by male collegiate athletes than non-athlete students. Alcohol consumption, especially binge drinking, has also been found to be positively associated with domestic violence (Kantor, 1993). It has been found that athletic status and alcohol consumption in college students were positively associated with sexual violence (Koss & Gaines, 1993). Being impaired by alcohol consumption can often lead to situations involving coercive rape, which would be avoided if cognitive reasoning and communication were intact. Drinking alcohol can also be part of a premeditated attempt to sexually assault others or be violent and can also help them to distance themselves from their actions (Crosset, 1999). In a survey involving 17,251 students, athletes self-reported binge-drinking at a higher rate and drink to feel intoxicated more often than non-athletes (Naughton, 1996). The findings from the researches mention above offer some evidence for the association between participation in elite sports and sexual and domestic violence and have contributed to raising the issue of whether male athletes are more likely to engage in such crimes. However, Dershowitz (1994) argues that athletes can often be targets for false rape allegations, and Lapchick (1995) criticised research linking athletes to abuse and offending.

Previous research suggests that sexually aggressive males were more likely to possess more liberal attitudes towards rape compared to non-aggressive males (Malamuth, 1986; Malamuth, Linz, Hearvey, Barnes & Acker, 1995; Malamuth, Sockloskie, Koss & Tanaka, 1991). Men who have more liberal attitudes towards violence, believe that woman take pleasure in violence, and view violence as an appropriate method of controlling women are more likely to engage in violence acts against women (Crowell & Burgess, 1996). It is often questioned whether the athlete environment advocates sportsmanship and self-discipline, as would be

presumed, or whether it promotes violence and disobedience within the population to already privileged athletes (Kreager, 2007). Athletes are regularly taught to perceive success as more important than their safety (Crosset, 1999). It was found that a proportion of athletes acknowledge that violent sport impacts their off-field behaviour (Coakley, 2007). However, Schwartz and Nogrady (1996) contended that group affiliation type, such as in a sport team or fraternity, was less influential and significant than the attitudes of the members within the group. The more peer support for a behaviour, the more likely members of the group will engage in types of behaviours. Crosset (1999) explains that older teammates can influence younger and less-experienced players to engage in risky behaviours, including offending. These acts can be attempts to encourage younger team members to display their masculinity and maintain long-standing team norms.

Benedict and Yaeger (1999) collected the criminal records of 509 National Football League players from the 1996-1997 season, which was approximately a third of the whole league population. They found that 21% of the sample had been arrested or indicted for a serious crime, with a total of 264 arrested, revealing an average of 2.42 arrests per player. However, the figures did not include less serious offences, and did not take into consideration whether the players were playing professional sport at the time of the crime (O'Hear, 2001). The report also does not reveal the extent of the issue within other sports. Hitherto, there has been a deficiency of reliable published statistics regarding the extent of the issue. Therefore, the purpose of the current study was to develop a better understanding of the most commonly occurring types of offending and risky behaviours of elite athlete population. In addition, the study aimed to distinguish frequently co-occurring behaviours to understand whether there were regular commonalities which may reveal influences and predictors of more serious offending and risky behaviours. The ultimate aim of the research was to generate statistics and to influence the direction of future potential education programmes and interventions for elite athletes. By decreasing the number of offending and risky behaviours perpetrated by the elite athlete population, it may lessen the number of victims affected, improve the image of athletes and sports, and create more influential sporting role models for the general population.

To achieve this, the study had three main objectives. The first objective was to determine the most commonly occurring offending and risky behaviours in a sample of elite professional athletes through the generation of statistical data. This was done to distinguish what types of behaviours are predominantly occurring in the population, and which behaviours pose the most considerable problem. For example, if sexual offences were found to be the most

commonly occurring offence within the population, this would suggest that interventions should be focused at reducing such incidences, such as sexual consent education. This was also done to determine the categories of athlete behaviour and to understand which group of behaviours was most commonly engaged in. It was estimated that, in doing this, the results could enable an understanding of the most prevalent type of problem behaviour present in the population. However, it was also important to understand how behaviours can develop over time and whether there are behaviours which commonly co-occur in the elite athlete population. Past behaviour can often be a predictor of future behaviour (Ouellette & Wood, 1998) and it has previously been reported that adolescent offending increases from age 10 to 17, and frequently peaks at the age of 20 (Wolfgang, Thornberry & Figlio, 1987). If offending and risky behaviour is incited in high school and collegiate athletic environments, it is likely that these behaviours will be carried through to elite professional athletic level.

Consequently, the second objective of the study was to determine the relationship between the offending and risky behaviours of a sample of elite athletes by examining common co-occurrences. This was done to establish how behaviours can develop over time and throughout sporting careers by exploring the types of behaviours which commonly co-occur. It was thought that this could result in the identification and creation of vital types of early interventions. These types of interventions could then aid in the prevention and reduction of more serious offending and risky behaviour in the population. For example, if it was found that athletes who engaged in heavy recreational alcohol use were also commonly reported to be involved in driving offences, such as driving under the influence, it may be beneficial for athletes who frequently drink heavily to undergo an alcohol and driving awareness course, with the aim of reducing drink-driving and alcohol-inflicted traffic accidents. It was thought that this could be supported by understanding the chief forms of athlete and offending behaviours.

With the current study being one of the first in the field, the final objective was to establish the direction of future research, by identifying the predominant issues which arise from the results. To date, to the best knowledge of the current researcher, there are no previous studies which investigate the offending and risky behaviours of elite professional athletes in this way. The study is novel and exploratory in nature, aiming to build the foundations for a new type of research regarding the off-field behaviours of elite professional athletes. On the basis of the lack of previous research, the objectives for the current study were:

1. To determine the most commonly occurring and co-occurring offending and risky behaviours in a sample of elite professional athletes.
2. To establish the relationship between the offending and risky behaviours of a sample of elite professional athletes.
3. To distinguish the most prominent problem behavioural types in the population for which interventions and preventative measures need to be developed.

4.3 Method

4.3.1 Sample

A sample of 212 cases of elite athlete risky and offending behaviour cases were identified, involving professional ($N= 140$) and collegiate ($N=72$) athletes. The sample included all male athletes with an age range at first offending or risky behaviour of 14-55 years ($M= 24.23$, $SD=6.55$), involved in a range of different sports (see Table 3.1). The cases were identified through a search strategy (see section 3.3.2.1.1) and the inclusion and exclusion criteria (see section 3.3.2.1.2) were then referred to before being included in or excluded from the sample. Once cases were confirmed to satisfy the inclusion criteria, the individual athletes within those cases were then subject to further searching to distinguish if they had been involved in any other offending and/or risky behaviours which had been reported in the media. Any additional information collected about a case was also only included in the data if the inclusion criteria was satisfied.

Table 4.1 Frequency of athletes which play each sport in the sample.

Sport type	Frequency	(N=212)%
American Football	67	31.6
Basketball	41	19.3
Football	22	10.4
Baseball	20	9.4
Boxing	9	4.2
Ice hockey	9	4.2
Mixed Martial Arts	8	3.8

Swimming	6	2.8
Horse Racing	4	1.9
Rugby	4	1.9
Cricket	3	1.4
Golf	3	1.4
Multiple sports	3	1.4
Darts	2	.9
Tennis	2	.9
Volleyball	2	.9
Wrestling	2	.9
Canadian football	1	.5
Hockey	1	.5
Lacrosse	1	.5
Running	1	.5
Track and field	1	.5

Table 4.2 Birthplaces of the athlete sample.

Country	Frequency	(N=212)%
United States of America	148	69.8
United Kingdom	20	9.4
Canada	6	2.8
Dominican Republic	3	1.4
Republic of Ireland	3	1.4
South Africa	3	1.4
West Africa	3	1.4

Australia	2	.9
Jamaica	2	.9
New Zealand	2	.9
Spain	2	.9
Argentina	1	.5
Belgium	1	.5
Cuba	1	.5
Denmark	1	.5
Fiji	1	.5
France	1	.5
Germany	1	.5
India	1	.5
Iran	1	.5
The Netherlands	1	.5
North Africa	1	.5
Sweden	1	.5

Cases had to satisfy inclusion criteria to be included in the sample. The cases were collected through the use of a systematic search strategy (see section 4.3.1.1), ensuring that information was consistently reported on at least three reliable news media platforms. If the inclusion criteria (see section 4.3.1.2) was satisfied, the cases were included in the sample. Separate searches were then conducted to attain any further information about other offending and risky behaviour perpetrated by that individual athlete. Throughout the additional searching, the same inclusion/exclusion criteria were consistently used to identify whether or not the information could be included. If the case or specific information relating to a case did not satisfy inclusion criteria, the case as a whole, or specific information relating to that case, was excluded from the sample.

4.3.1.1 Search Strategy

The systematic search for cases was conducted between July 2016 – December 2017. Using the Google Search engine and Google Alerts, the following combinations of keywords were used:

'athlete' OR 'sport' OR 'sport player' OR 'professional athlete' OR 'college athlete' OR 'elite athlete' AND 'offence' OR 'offending' OR 'crime' OR 'arrest(ed)' OR 'charge(d)' OR 'court' OR 'indict(ed)' OR 'jail(ed)' OR 'prison' OR 'sentence(d)' OR 'sentencing' OR 'risk(y)' OR 'risky behaviour' OR 'police' OR 'suspended' OR 'suspension' OR 'fine(d)' OR 'felony' OR 'misdemeanour' OR 'remand(ed)' OR 'custody'

Cases were then subject to the criteria outlined below before being included in or excluded from the dataset.

4.3.1.2 Inclusion and Exclusion Criteria

For cases to be included in the research, they had to satisfy all items in the following inclusion criteria.

- The athlete involved must be either a professional or elite collegiate athlete, competing in sport for monetary value.
- The athlete must have engaged in the risky behaviour or committed the offences during or after their sporting career.
- Athletes must be formally charged with an offence or given a guilty verdict at trial for an offence to be included.
- Athlete cases of legal but risky behaviour must adhere to the risky behaviour definition provided (see Section 1.5).
- The information must be reported in at least three separate media sources, which are known to be more reliable.

Cases were excluded if they met at least one of the following exclusion criteria.

- If athletes are not, and have never been, professional nor collegiate level.
- If the athlete committed a crime/engaged in a risky behaviour prior to beginning their sporting career.

- If the athlete was exonerated and/or given a not guilty verdict at trial for an offence, and/or reports of risky behaviours were found to be unreliable.
- If athlete behaviour does not adhere to the risky behaviour definition provided.
- If the information has been reported in less than three separate reliable media sources, or if it has only been reported in multiple media sources which are known to be less reliable.

4.3.2 Design

The design of the study was exploratory; data was collected through secondary sources which were openly accessible to the public. Once identified, the individuals involved in those cases were then subject to a further investigation to develop the information on the individual with regards to their risky and offending behaviour over the course of, and after, their sporting career. Rich, qualitative information was initially used to identify offending and risky behaviours, before being dichotomously coded.

4.3.3 Materials

Using a computer, Google Search was utilised to search a combination of the keywords outlined in the search strategy to identify elite athlete cases of offending and risky behaviour. Google Alerts was then utilised to update the researcher of any changes to cases and informed of any new cases which could be included within the searching period until data collection ceased. Cases were then put onto Microsoft Excel, before the data being exported to IBM Statistical Package for the Social Sciences (SPSS) 24. A content dictionary (see Appendix A) was then created with full explanatory elaborations used to define each offending and risky behaviour in relation to the variables included in the study; the content dictionary provides a list of categorical descriptions of behaviour across all cases. A total of 41 offending and risky behaviour variables were identified through the 212 cases. Following coding, the data was analysed using Hebrew University Data Analysis Package (HUDAP) 8 software. Following this, Microsoft PowerPoint was used to create the finalised SSA output with regional interpretations.

4.3.4 Procedure

Prior to data collection, the search strategy, and inclusion and exclusion criteria were produced based on the research aims. Following this, an initial systematic search was performed using the strategy outlined, and each case identified was then subject to the inclusion and exclusion criteria. If the inclusion criteria were satisfied then the case would be added to a database on Microsoft Excel, with details of the offence or risky behaviour. If cases met at least one of the exclusion criteria, the case was excluded from the sample. Following the initial search, individuals identified in the sample were then subject to further, more intensive searching to examine any additional offending and/or risky behaviours of that individual during their sporting career. Additional information also had to satisfy inclusion criteria to ensure it was reliable. Also following the initial search, updates were activated on Google Alerts, using the same keyword combinations outlined in the search strategy, for the researcher to be notified if there were any recent cases of athlete offending and risky behaviour which had been reported during the time between initial searches and more intensive searching on each case. Data was collected between December 2016-December 2017.

Subsequently, the database included an abundance of qualitative data detailing the offending and risky behaviours of the sample. From the data, common behaviours emerged, and a content dictionary providing definitions of each behaviour variable was devised. Next, based on the variables defined, the data was dichotomously coded (0=absence of variable, 1=presence of variable). Throughout coding variables were when combined when appropriate, and the content dictionary updated. Once all data was coded, HUDAP 8 software was used to run a Smallest Space Analysis (SSA). Table 4.3 displays full labels and analysis labels of each offending and risky behaviour, whilst Appendix A presents definitions of each variable in the form of a content dictionary.

4.3.5 Analysis – Smallest Space Analysis (SSA)

SSA is a non-metric Multi-Dimensional Scaling (MDS) procedure, developed by Guttman (1968) and computerised by Lingoes (1973), which allows points to be mapped on a plot. These points represent variables and their relationships within a space; the closer together the points, the closer the associations are between the points. This method provides a visual representation of relationships between variables to enable interpretation of relationships, and

themes within the dataset. SSA analyses allow for easier and more efficient examination of relationships because examining the raw mathematical data alone would prove difficult. The null hypothesis of SSA is that the variables included have no comprehensible relationship with each other. SSAs are a useful, exploratory tool which can allow for the generation of hypotheses, regarding the variables of the area under research, as well as the relationships between the variables. SSAs can be used for hypothesis testing and also hold heuristic value as they can signpost researchers to future study.

Canter (1996) explains that SSA is a procedure which shows the correlations between variables through the distances between them within a statistically derived space. The SSA program processes the association coefficients between all variables and before rank ordering these correlations. This creates a triangular matrix comprising of correlation coefficients for each variable as correlating with all other variables. These coefficients are utilised to create a spatial representation of items with points signifying variables. Each of the variables is placed on the plot in relation to all other variables dependent on their associated correlations between all variables. The more highly variables are intercorrelated, the closer together their points are placed within the SSA space. Therefore, variables that are heavily associated should appear together in the region of the SSA plot, showing they share the same facet elements. Variables which are less associated should be situated in different regions of the plot, showing that they show fewer or no facet elements (Canter & Heritage, 1989). Regions can therefore be examined and defined into themes.

The measure of how closely related the rank orders of original correlation matrix are to the rank orders of the distances between the points in the spatial representation is indicated by the coefficient of alienation (Borg & Lingoes, 1987). The smaller the coefficient of alienation, the better the fit between the original correlation matrix and the plot. A perfect fit would be represented by 0, a coefficient smaller than .15 is considered a good fit, whilst a coefficient between .15 and .20 is considered a relatively good fit (Guttman, 1968). However, how good the fit depends on the number of variables in the dataset, the amount of errors within the data, and the strength of the interpretation of the plot (Borg & Lingoes, 1987).

The SSA process relates to the Facet Theory (Canter, 1985) which involves examining the variables and exploring groupings of variables to classify the regions within the space. The SSA plot can be divided into regions using partitions to characterise variables sharing similar facet elements. The variables within a particular region of the plot represent distinct facet

elements whilst variables in other regions signify other facet elements. Essentially, variables which have similar meanings and associations will be closer together on the plot. The boundary lines are placed on the plot by the researcher to indicate that items within the region are associated with the same theme, whilst items in other areas are associated with other themes on the plot. However, some items may share aspects from other themes and so changes in the way items are phrased could potentially lead to variables being placed in another region of the plot. The boundary lines are only in place to represent changes in the meanings of the variables around the SSA plot and are not completely defining indicators (Canter, 1996).

Once boundary lines are placed, there are points closer to the boundaries than others. These variables tend to share meanings from the other side of the boundary line, whereas variables further away from boundary lines tend to be more definitive of the allocated region. The spatial placement of the points representing the variables tests for the major underlying differences between these variables, which is revealed through their co-occurrences, and thus tests for whether facets are empirically supported. Therefore, the SSA plot poses as a foundation for testing and the development of hypotheses regarding the relationships between variables. Variables which share similar facet elements should be more highly correlated and therefore should be situated closer together in the multidimensional space than variables which do not share the same facet elements. Points which have commonalities will be found in the same region of the plot, whilst variables which have low commonalities will be located in different regions of the plot. Areas within the SSA plot which have few or no points can indicate weaknesses in the data or missing facet elements which can direct future research to test for missing elements from the data. This can help to identify matters which were not included in the original dataset (Canter, 1996).

To clarify, each point in the SSA space represents a distinct variable, in this case whether or not the athlete was reported to have engaged in a particular offending/risky behaviour. The closer two points are to each other on the plot, the more highly associated they are; in this case the higher the frequency of co-occurrence of behaviours within the elite athlete sample. Contrastingly, the further away two points are, the less associated they are with each other; in this case the fewer co-occurrences of behaviours within the elite athlete sample. In the majority of studies which explore offending behaviours, the measure of co-occurrence used is Jaccard's coefficient (Jaccard, 1908). This computes the number of co-occurrences between two variables as a proportion of all occurrences of both variables (Canter, 1996). SSA is an

investigative method which has been successfully applied in numerous studies which have focused on varying offending and risky behaviours (e.g. Ioannou, Canter, Youngs & Synnott, 2015; Ioannou, Synnott, Lowe & Tzani Pepelasi, 2018; Ioannou, Synnott, Reynolds & Pearson, 2018; Synnott, Ioannou, Coyne & Hemingway, 2018; Yaneva, Ioannou, Hammond & Synnott, 2018).

4.3.5.1 Smallest Space Analysis vs Factor Analysis

Although Factor Analysis (FA) is a more traditional way of examining interrelationships among variables, SSA was chosen for the method of analysis for this study. There are a number of similarities and several differences between SSA and FA. These methods of analysis share a number of similarities and have the common purpose to reduce variables into groupings (Maslovy, Marshall & Alkin, 2001). Guttman (1982a) stated that FA is a type of SSA but there are several differences between them.

Firstly, SSA allows greater flexibility in describing the relationships between variables. In SSA, distances between variables are represented based on the inverse of the relational coefficient, meaning that the larger the coefficient, the smaller the distance between variables within the space (Maslovy et al., 2001). Secondly, results are more coherent with SSA as domains are represented in fewer dimensions whereas FA may produce more factors than can be construed by the researcher (Maslovy et al., 2001). FA produces a larger number of dimensions due to its dependency on strict assumptions of linearity, whereas SSA allows nonlinear relationships between variables and hence produce a more visualisable representation (Shepard & Nerlove, 1972). The third difference is that, in SSA, the coefficient is not adjusted for reliability (Maslovy et al., 2001) and it produces fewer dimensions without adjusting the diagonals of the correlation matrix (Guttman, 1982a). Additionally, it can often be simpler to represent the results of SSA in a visual geometric space when compared with FA (Guttman, 1982a; Guttman, 1982b). Finally, FA requires a large sample size whereas, although a large sample size can increase the robustness of an SSA, it is not essential (Maslovy et al., 2001).

In the present study SSA was preferred over FA as SSA is related to an association matrix rather than to a linear combination of factors. In addition, the SSA procedure considers

low and highly correlated variables grouped according to facet/theme, whilst FA tends to ignore variables which do not correlate with the factors extracted.

4.3.6 Ethical Considerations

The research received full ethical approval from School Research Ethics Panel (SREP) at the University of Huddersfield prior to data collection. The research was performed in accordance with the British Psychological Society (BPS) ethical guidelines (BPS Code of Human Research Ethics, 2014).

Due to the nature of the research, ethical considerations were relatively limited for this study. No direct contact was made with any of the sample due to all data being secondary data collected from various media sources, so there was no possibility of any physical or psychological harm being caused to individuals through data collection. No permission was required to use the information as it was collected through openly accessible media sources which are available to the general public. Data was anonymised to remove any risk of defamation since, despite the information being readily accessible presently, it could be possible that, in the future cases could be overturned, individuals exonerated, or information regarding legal but risky behaviour may be proved fictitious.

4.4 Results

4.4.1 Offending and Risky Behaviour Frequencies of the Athlete Sample

The frequency of athletes that engaged in each offending/risky behaviour was first examined (see Table 4.1), showing that the most frequent behaviour within the sample was ‘Sexual offences by a single perpetrator’.

Table 4.3 Frequency and percentage of athletes which engaged in each offending/risky behaviour.

Full item	Analysis label	Frequency	(N= 212)%
Sexual offences by a single perpetrator	Sex offences	102	48.1
Heavy recreational alcohol use	Rec. alc. use	50	23.6

Physical assault by a single perpetrator	Assault	50	23.6
Domestic abuse	Dom. abuse	36	17.0
Driving offences	Driving offences	34	16.0
Gang rape/sexual assault	Gang rape	32	15.1
Use of threats	Threats	25	11.8
Failure to comply with authority	Fail to comply	24	11.3
Possession of drugs/paraphernalia for personal use	Drug personal use	22	10.4
Recreational drug use	Rec. drug use	22	10.4
Driving under the influence	DUI	21	9.9
Drug addiction	Drug addiction	21	9.9
Adultery	Adultery	19	9.0
Alcohol addiction	Alc. add.	18	8.5
Gambling	Gambling	17	8.0
Violation of sporting rules	Violate sport rules	16	7.5
Child sexual offences	Child sex offences	14	6.6
False imprisonment	False imprisonment	14	6.6
Involvement in fights/brawls	Fighting	14	6.6
Underage drinking	Underage drinking	11	5.2
Use of/involvement in non-consensual X-rated photos/videos	X-rated photos/videos	11	5.2
Hate crime	Hate crime	10	4.7
Soliciting sex	Soliciting sex	10	4.7
Trespassing/forced entry	Trespassing	10	4.7
Acquisitive crimes	Acquisitive	9	4.2
Possession/use of a weapon	Weapon	9	4.2
Harassment	Harassment	7	3.3
Endangerment	Endangerment	6	2.8
Group physical assault	Group physical assault	6	2.8
Indecent exposure	Indecent exposure	5	2.4
Possession of drugs with intent to supply	Supply drugs	5	2.4
Supplying alcohol to minors	Supply alcohol to minors	5	2.4
Vandalism	Vandalism	5	2.4
Bankruptcy	Bankruptcy	4	1.9

Drug overdose	Overdose	4	1.9
Possession of illegal documents	Illegal docs	4	1.9
Urinating on a person or property	Urinating on person/property	4	1.9
Consensual group sex	Group sex	3	1.4
Drunk and disorderly	Drunk and disorderly	3	1.4
Involvement in initiation rituals	Initiation rituals	3	1.4
Murder/manslaughter	Murder/manslaughter	3	1.4

4.4.2 Themes of Athlete Offending and Risky Behaviour

Figure 4.1 shows the distribution of the 41 offending and risky behaviours identified in the elite athlete sample. The 3-dimensional SSA has a coefficient of alienation .16177 in 40 iterations. This shows a very good fit between the Pearson's coefficients of the role variables and their corresponding geometric distances in the composition. The labels are shortened versions of the behaviours identified. The inter-rater reliability for this interpretation was $3/3 \times 100 = 100\%$.

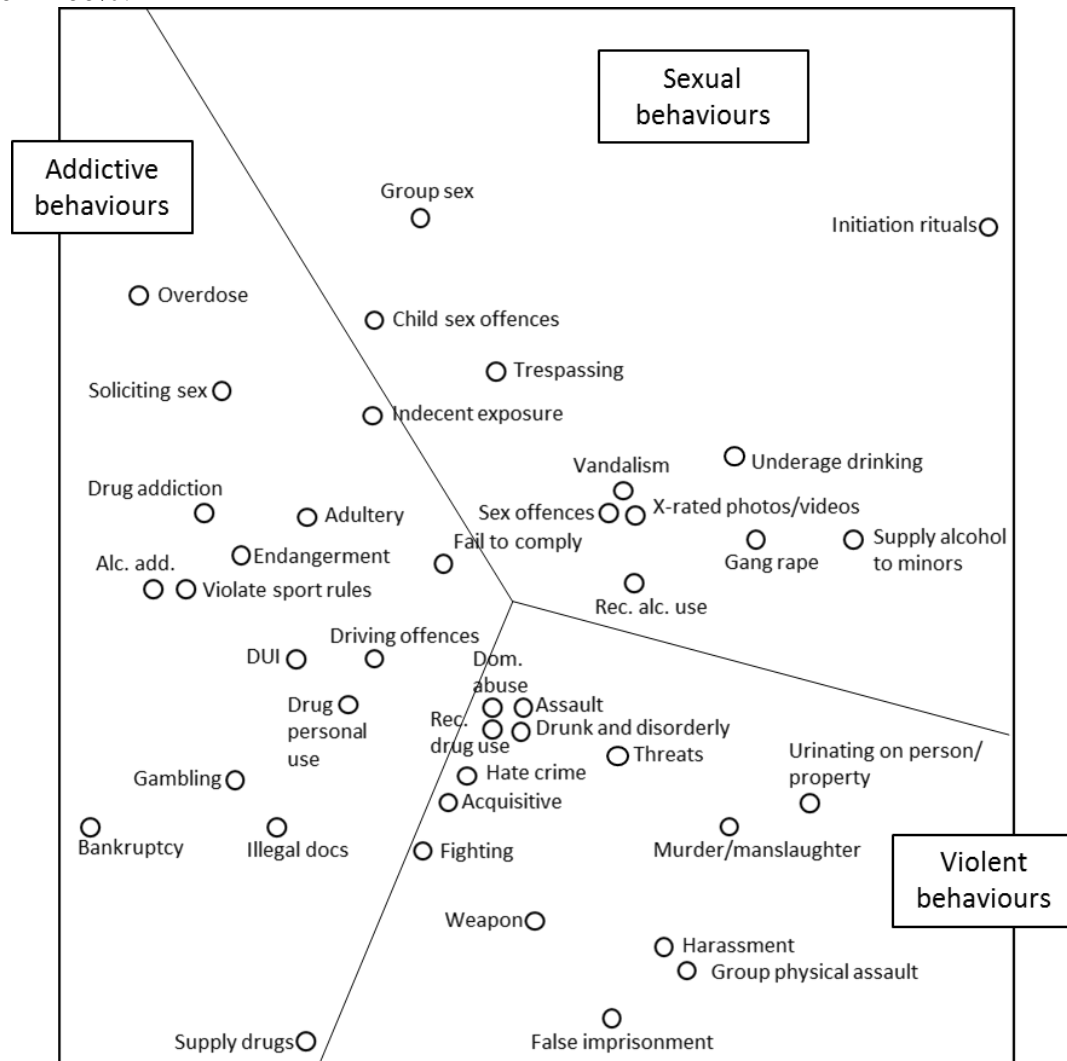


Figure 4.1. 1 by 3 projection of the Three-Dimensional Smallest Space Analysis (SSA) of Offending and Risky Behaviours in the Elite Athletes Population with regional interpretation. Coefficient of Alienation= .16177.

The initial stage of the SSA interpretation was to explore the structure of the offending and risky behaviours by examining the SSA configuration. The regional hypothesis assumes

that variables which share common themes will be found in a similar region of the space. Interpretation was approached by studying the patterns of the variables to identify whether specific regions of the SSA formed distinct themes. In this case, initial inspection suggested that it was possible to identify distinguishable themes. Secondly, the grouping of variables was observed to establish whether each of the groups could be defined by a common theme. The interpretation of the items formed the basis for the interpretation of relationships between variables and themes. By examining the SSA plot (Figure 4.1), it was evident that the variables could be grouped into three distinct themes of offending and risky behaviours: addictive behaviours, sexual behaviours, and violent behaviours. The frequencies of each behaviour within their respective themes are present in Table 4.2 below.

Table 4.4 Frequency and percentage of athletes which engaged in each offending/risky behaviour, with behaviours presented within their respective behavioural themes.

Theme	Offending/risky behaviour	Frequency	(N= 212)%
Addictive behaviours	Driving offences	34	16.0
	Failure to comply with authority	24	11.3
	Possession of drugs/paraphernalia for personal use	22	10.4
	Driving under the influence	21	9.9
	Drug addiction	21	9.9
	Adultery	19	9.0
	Alcohol addiction	18	8.5
	Gambling	17	8.0
	Violation of sporting rules	16	7.5
	Soliciting sex	10	4.7
	Endangerment	6	2.8
	Indecent exposure	5	2.4
	Possession of drugs with intent to supply	5	2.4
	Bankruptcy	4	1.9
	Drug overdose	4	1.9
	Possession of illegal documents	4	1.9
	Total occurrences	230	-
Sexual behaviours	Sexual offences by a single perpetrator	102	48.1
	Heavy recreational alcohol use	50	23.6

	Gang rape/sexual assault	32	15.1
	Child sexual offences	14	6.6
	Underage drinking	11	5.2
	Use of/involvement in non-consensual X-rated photos/videos	11	5.2
	Trespassing/forced entry	10	4.7
	Supplying alcohol to minors	5	2.4
	Vandalism	5	2.4
	Consensual group sex	3	1.4
	Involvement in initiation rituals	3	1.4
	Total occurrences	246	-
Violent behaviours	Physical assault by a single perpetrator	50	23.6
	Domestic abuse	36	17.0
	Use of threats	25	11.8
	Recreational drug use	22	10.4
	False imprisonment	14	6.6
	Involvement in fights/brawls	14	6.6
	Hate crime	10	4.7
	Acquisitive crimes	9	4.2
	Possession/use of a weapon	9	4.2
	Harassment	7	3.3
	Group physical assault	6	2.8
	Urinating on a person or property	4	1.9
	Drunk and disorderly	3	1.4
	Murder/manslaughter	3	1.4
	Total occurrences	212	-

4.4.3 Addictive Behaviours

The 16 variables which can be grouped into addictive behaviours are:

1. Driving offences. 2. Failure to comply with authority. 3. Possession of drugs/paraphernalia for personal use. 4. Driving under the influence. 5. Drug addiction. 6. Adultery. 7. Alcohol addiction. 8. Gambling. 9. Violation of sporting rules. 10. Soliciting sex. 11. Endangerment.

12. Indecent exposure. 13. Possession of drugs with intent to supply. 14. Bankruptcy. 15. Drug overdose. 16. Possession of illegal documents.

This type of behaviour can be described as involvement in activities which are habitual and impulsive, and where the individual may not have control of their urges to the point where an activity becomes harmful in some way (Nutt & Nestor, 2018). Within this region of the SSA plot, there are behaviours which are clearly consistent with the allocated theme. Also within the region, there are behaviours which initially appear to be anomalies: endangerment, indecent exposure, soliciting sex, adultery, and possession of illegal documents. However, examination of the raw dataset, along with the definitions of the risky behaviours in the content dictionary provide an insight into how these behaviours are linked to the region theme.

Case 103:

The athlete admitted to taking cocaine after testing positive on a drugs test, and having a problem with alcohol, leading to his admittance to rehab twice in 1995. He was later arrested for trying to buy drugs from an undercover police officer. He claimed that he had hired prostitutes for opponents to tire them out and to using them himself. It was alleged that he spent thousands on narcotics during the peak of his drug-use. For a period of 10 years he was sober and abstained from drug and alcohol use. In 2009, he was arrested for leaving the scene of a car accident after running into another vehicle. The athlete admitted that he would often use the urine of his teammates in order to pass drug tests. In 2011, he pleaded guilty to sexual misconduct and endangerment due to sexual activity with an underage girl, and then paying her for sex.

Case 187:

In 1991, the athlete was arrested and jailed for the rape of a woman in his hotel room, although he claimed that the sexual activity was consensual, despite examiners confirming that the physical injuries were consistent with rape. In 2006, he was arrested for driving under the influence and for drug possession. The athlete admitted to having a drug addiction. In 2007, he was arrested again for driving under the influence and possession of illegal drugs, for which he pleaded guilty. In 2011, he was arrested for getting into a fight with a photographer whilst in an airport. In an interview later in 2011, he made controversial comments regarding interracial

sex. He is also alleged to have committed adultery and domestic abuse. He bit an opponent's ear during a boxing match. In 2003, he filed for bankruptcy due to excessive spending.

4.4.4 Sexual Behaviours

The 11 variables which can be grouped into sexual behaviours are:

1. Sexual offences by a single perpetrator. 2. Heavy recreational alcohol use. 3. Gang rape/sexual assault. 4. Child sexual offences. 5. Underage drinking. 6. Use of/involvement in non-consensual X-rated photos/videos. 7. Trespassing/forced entry. 8. Supplying alcohol to minors. 9. Vandalism. 10. Consensual group sex. 11. Involvement in initiation rituals.

This type of behaviour can be described as involving some aspect of sexual activity, both legal and illegal, and incurs a potential risk. The region also includes behaviours which can be associated with these sexual situations. Within this region there are behaviours which are evidently consistent with the allocated theme. Also within the region, there are variables which initially appear to be inconsistent with the theme: vandalism, and heavy recreational alcohol use. An examination of the raw dataset along with the definitions of behaviours in the content dictionary provide an indication of how these behaviours are associated with the region theme.

Case 13:

The athlete was involved in a gang attack, where he encouraged his teammates to rape an unconscious female. He was videoed carrying the woman into his room and handing condoms out to three of his teammates. He also took pictures on his mobile phone and sent them to friends whilst the attack was occurring. He was convicted of aggravated rape, aggravated sexual battery, and unlawful photography. The victim stated that he gave her alcohol until she was unconscious. He was alleged to have been high on cocaine and under the influence of alcohol at the time.

Case 84:

The athlete and two of his friends was accused of drugging a female at a party before trespassing into her apartment and proceeding to sexually assault her whilst she was

unconscious. It was revealed that the athlete and the victim had been dating for over a year and would ask that she joined him in group sex, although she refused. It was reported that he would ask her to send pictures and videos of her masturbating, but she was uncomfortable doing so, and he would become aggravated when it was not done how he wanted. The relationship broke down when the victim refused to engaged in a sexual activity with him and another couple.

4.4.5 Violent Behaviours

The 14 variables which can be grouped into violent behaviours are:

1. Physical assault. 2. Domestic abuse. 3. Use of threats. 4. Recreational drug use. 5. False imprisonment. 6. Involvement in fights/brawls. 7. Hate crime. 8. Acquisitive crimes. 9. Possession/use of a weapon. 10. Harassment. 11. Group physical assault. 12. Urinating on a person or property. 13. Drunk and disorderly. 14. Murder/manslaughter.

This type of behaviour could be described as behaviours which incur physical force with the intention of harming another person. In addition to physical force, violence can also manifest as verbal and emotional harm directed towards others e.g. threatening language and behaviour, and emotional domestic abuse. Within this region, all variables are evidently consistent with the allocated theme of the region.

Case 68:

In 1993, the athlete was first arrested for fighting at a bowling alley where he threw a chair at a woman and knocked her unconscious. In 1997, he was stopped by police for speeding and then arrested for carrying a concealed weapon and for possession of Marijuana, to which he pleaded no contest. In 2000, he created a rap single which could not be released due to the derogatory remarks aimed at homosexuals included. In 2001, he was involved in a domestic dispute with his wife where he then threw his wife out of the house and later threatened two men with a gun. In 2004, he was found to have urinated into a public bin outside of a casino. In 2005, he was at a casino and the dealer made a mistake when dealing the chips. He received more chips than he should and when asked to return them he became aggressive towards staff and refused.

Case 104:

The athlete was convicted for possession of cocaine and marijuana, and it is alleged he used to sell drugs with his friend. He was known for being violent and assaulting people in the street, and he would regularly harass a man who worked in his local corner shop. He served custodial sentences for assault and theft. He was known for intimidating police, and following police cars. It was alleged that police officers would often avoid confronting him as he was known to be dangerous. In 2005, he was involved in a fight at a party in which he was stabbed. In 2006, he was arrested for involvement in a group robbery and possession of drugs. The robbery was one of the largest cash robberies in British history. During the robbery, several men were abducted and threatened with weapons such as guns. Once imprisoned, he attempted to escape prison, and was also involved in smuggling contraband into prison.

4.4.6 Internal Reliability

The three behavioural themes which have been identified are proposed to reflect the most commonly occurring types of offending and risky behaviours in the elite athlete population. This implies that each of the variables grouped within each theme should form a scale in the sense that the combined existence is a reasonable indication of some underlying dimension. Cronbach's Alpha was used to determine the reliability coefficients for each set of variables in each theme. The reliability coefficients are displayed in Table 4.3 below.

Table 4.3 Internal reliability of the three behavioural themes

	Addictive	Sexual	Violent
Number of variables	16	11	14
Cronbach's α	.63	.48	.59

4.5 Discussion

The theme which included the highest frequency of incidences in the sample was Sexual Behaviours with 246 occurrences, comprising of 11 variables. The theme with the second highest frequencies of incidences was Addictive Behaviours with 230 occurrences, including 16 variables. The theme with the lowest frequency of incidences was Violent Behaviours with 112 occurrences, consisting of 14 variables.

4.5.1 Sexual Behaviours

In addition to behaviours from the Sexual Behaviours region being the highest frequency across the cases, 'sex offences by a single perpetrator' was the most prevalent behaviour in the sample overall, present in 48.1% of cases. An explanation for high rates of risky sexual behaviour within the sample could be attributed in part to athletes having easier access to sexual partners, particularly relationships in the short-term. Athletes involved in higher masculinity and contact sports can have easier access to casual sexual encounters, and this may result in higher incidents of risky sexual behaviour (Vajda & Reguli, 2018). Additionally, males with higher testosterone levels can have a higher number of sexual partners over time (Gray, McHale & Carre, 2017). Athletes with elevated testosterone may be more likely to engage in particular sports and may also gain higher levels due to their training (Vajda & Reguli, 2018). Given that 31.6% of the sample were American Football athletes, a sport which is classed as a masculine contact sport, this could contribute towards an explanation for the findings of high risky sexual behaviour rates in the sample.

'Heavy recreational alcohol use' was the second most common behaviour within this theme, as well as overall within the sample, present in 23.6% of the cases. Although this behaviour appears more consistent with Addictive Behaviours, it was often present in cases of rape and sexual assault. This co-occurrence is consistent with research which has found that greater alcohol is associated lower sexual inhibitions, increased sexual violence, and other risky sexual behaviours such as unprotected sex (e.g. Kantor, 1993; Koss & Gaines, 1993; Peterson, Janssen & Heiman, 2009; Turchik, Garske, Probst & Irvin, 2010). The Alcohol Expectancy theory (Goldman, Del Boca & Darkes, 1999), states that alcohol use can lead to behaviours such as unprotected sex for individuals who have the expectancy that alcohol results in them being more likely to engage in unprotected sex (Kiene, Simbayi, Abrams & Cloete, 2015). This provides support for the co-occurrence of heavy alcohol use and risky sexual behaviours.

Furthermore, 'Gang rape/sexual assault' was the third most common behaviour in the Sexual Behaviours region, and sixth overall in the sample, occurring in 15.1% of the cases. Again, according to the Alcohol Expectancy theory (Goldman et al., 1999), as many of these gang sexual behaviours co-occurred with alcohol use, those who expected alcohol to reduce sexual inhibitions may go on to engage in risky sexual behaviours when using alcohol which they otherwise may not without the use of alcohol. From examining the raw qualitative data, incidences of group rape as well as initiation rituals, all included group sexual offending. This

supports the work of Crosset (1999) who stated that more experienced teammates can encourage younger teammates to engage in risky behaviours. This was identified in the sample, specifically Case 13, where one athlete was reported to have encouraged his teammates to rape an unconscious woman whilst video recording and distributing condoms.

Previous research has shown that alcohol is associated with risky decision making and risky behaviours (Leigh & Stall, 1993), and that alcohol use can result in individuals becoming more inclined to have unprotected sex (Gordon & Carey, 1996; MacDonald, Fong, Zanna & Martineau, 2000; MacDonald, Zanna & Fong, 1996). According to the disinhibition theory, alcohol can lead to reduced inhibitions (Critchlow, 1986), and can result in individuals being more outgoing, social, and can play a part in antisocial behaviour (MacDonald, MacDonald, Zanna & Fong, 2000). However, this theory does not offer explanation as to why an individual can be aggressive in some situations involving alcohol, but happy when in others.

The alcohol myopia theory (Steele, Critchlow & Liu, 1985; Steele & Josephs, 1990; Steele & Southwick, 1985) proposes that, rather than alcohol reducing inhibitions, it can limit attentional capacity. This means that intoxicated individuals do not have the essential processing skills to attend to important information in their environment required to make informed decisions. Rather, they will attend to aspects in the environment which are most immediate or relevant to them (MacDonald, MacDonald, Zanna & Fong, 2000). When an individual is decision to engage in risky sexual behaviour, cues which are both impelling (benefits of behaviour) and inhibiting (costs of behaviour) are present. An individual who is sober would have the capacity to make an informed decision by weighing both types of cues, whereas an intoxicated individual would not be able to attend to all cues, and is likely to attend to only one of the types of cues. According to the alcohol myopia theory, when an intoxicated individual will attend to the impelling cues, which may prevent impede them from attending to relevant inhibiting cues. In risky sexual situations, the impelling cues may be sexual arousal and immediate sexual pleasure, whereas the inhibiting cues may be contracting sexually transmitted diseases, or pregnancy. So, alcohol can result in individuals engaging in risky sexual behaviour despite their sober attitudes towards those behaviours (MacDonald, MacDonald, Zanna & Fong, 2000).

The findings from the current study suggest that sexual offending and risky behaviour needs the most focus with regards to reducing offending rates in athletes. Consistent with Crosset (1999), the high coincidence rates between sexual offending and heavy alcohol use

implies that alcohol can potentially blur the lines of sexual consent, or can act as a way for offenders to intentionally distance themselves from the responsibilities of a non-consensual act. This co-occurrence suggests that, as well as sexual consent training, substance abuse education alongside this could also prove to be a critical intervention to reduce these incidences.

4.5.2 Addictive Behaviours

The most common behaviour within the Addictive Behaviours region was ‘driving offences’, which was present in 16% of the sample. The second most common behaviour within the region was ‘failure to comply with authority’ which was present in 11.3% of cases. Both of the most commonly occurring variables in the Addictive Behaviours theme do not initially seem to directly relate to the theme, but when examining the data case-by-case, it was clear that drug and alcohol use was often heavily involved in cases where these common variables were present, especially in incidences of DUI. This was identified in the sample, particularly Case 125, where the athlete was a gambling addict and stated he cashed in his pension to gamble with. It was reported that he believed to have spent £7 million during his career, mostly whilst abusing alcohol and drugs. He was reported to have claimed he was under the influence of substances so much at times that he was not sure what he was betting on. The athlete went on to be involved in a traffic collision on a motorway with a lorry and was subsequently arrested for driving under the influence of alcohol. This could be explained through the work of Crosset (1999) who stated that athletes are regularly taught to attend more to success than their own safety. This could also support the work of Kreager (2007) who explained that athletes can often have their own set of rules, particularly when it comes to substance use and antisocial behaviour, despite professional sporting bodies claiming that they prohibit such behaviours. The results suggest that illegal and antisocial behaviour can often be attributed to addictive behaviours such as substance abuse. ‘Possession of drugs/paraphernalia for personal use’ present in 10.4% of cases, ‘driving under the influence’ present in 9.9% of cases, and ‘drug addiction’ also present in 9.9% of cases were the third, fourth, and fifth most common in the region.

Addiction research suggests that addiction develops from a combination of factors often based on individual vulnerabilities regarding personal nature, genetics, and the emotional and cultural environments individuals are raised in and how they are perceived (Svanberg, 2018).

In 1977, an experiment was conducted on rats. It was found that rats living in healthy and social environments took fewer drugs than rats in bleak environments, even when they were freely available to them. It was concluded that it was not the access to drugs which resulted in higher drug taking, but isolation and a lack of a fulfilling social environment (Alexander, Coombs & Hadaway, 1978). Later similar studies found that rats addicted to cocaine would choose cuddling with other rats over further drug consumption if they had the chance (Zernig, Kummer & Prast, 2013). Similar to the rats, humans living fulfilling lives tend not to become addicted to drugs and other addictive behaviours (Svanberg, 2018).

Different contexts of addictive behaviours can change the experience of engaging in that behaviour. For example, individuals learn how to experience a drug, just as with other experiences, by learning from peers and their surroundings (Svanberg, 2018). Norman Zinberg coined the term ‘set and setting’, where the ‘set’ is an individual’s expectation, intentions, and other personal factors such as personality and emotional state, and ‘setting’ refers to the environment such as social and cultural expectations surrounding the behaviour (Hartogsohn, 2017; Zinberg, 1984). Cultural studies have revealed that, with alcohol, people are more affected by their expectations of alcohol than the substance itself. For example, if an individual expects to be violent when drunk they tend to be more aggressive, or if an individual believes it to make them feel more sexually open then they can become more amorous (Heath, 1998). The meaning given to a substance or behaviour can influence engagement more than the substance/behaviour itself (Svanberg, 2018). Based on these studies, social learning theory could be used to explain cases of athlete addictive behaviour. If athletes experience peers engaging in and having a tolerant attitude towards addictive behaviours, and if individuals themselves have certain expectations from these behaviours then they may be more likely to engage in those addictive behaviours. This could be a suitable explanation for some of the addictive behaviour cases, particularly with team-sport athletes who spend a lot of time surrounded by their teammates.

There are various reasons as to why athletes may engage in substance abuse (Zamboni, Lugoboni & Zandonai, 2019). These can include to enhance sport performance (Henning & Dimeo, 2018; Heuberger & Cohen, 2018; Reardon & Creado, 2014; Zandonai, Lugoboni & Zamboni, 2018), to aid with sleep in order to recover faster (Gupta, Morgan & Gilchrist, 2017; Zandonai, Lugoboni & Zamboni, 2018), and to manage pain (Zamboni, Lugoboni & Zandonai, 2019). Research also suggests that athletes, particularly those who are elite, have intense physical and mental demands placed on them and this can increase the likelihood of suffering

with mental health problems and heightened susceptibility to risk taking (Hughes & Leavey, 2012). Additionally, when athletes reach their peak competitiveness (Allen & Hopkins, 2015), this tends to be at a peak age for onset of mental health problems (Gulliver, Griffiths & Christensen, 2012; Gulliver, Griffiths, Christensen, Mackinnon, Callear, Parsons, Bennett, Batterham & Stanimirovic, 2012). Emotional vulnerabilities and maladaptive coping are factors which have been identified as influencing addictive behaviours such as compulsive gambling (Blaszczynski & Nower, 2002; Turner, Jain, Spence & Zangeneh, 2008; Walker, 1989).

Athletes can also experience an array of stressors when competing such as media attention and public scrutiny, relocation leading to a reduced support network, group dynamics and the team environment, and the potential for career-ending injuries (Bruner, Munroe-Chandler & Spink, 2008; Fletcher & Wagstaff, 2009; Hanton, Fletcher & Coughlan, 2005; Noblet & Gifford, 2002; Woodman & Hardy, 2001). Athletes can cope with these stressors in different ways and can impact mental health and performance (Lazarus, 2000). However, athletes do not tend to seek out help for mental health issues and this can be due to stigma, feelings of showing weakness for seeking help, and a lack of understanding about mental health (Gulliver, Griffiths & Christensen, 2012; Reardon & Factor, 2010). It may be that in some cases athletes seek out alternate ways to cope with stressors and mental health issues, as well as to manage pain and sleep, by self-medicating illicit drugs, heavy alcohol use, and/or other addictive behaviours such as gambling.

In educating athletes about the implications of addictions and addictive behaviour, this could reduce the amount of drug and alcohol-related offending and risky behaviours, in addition to gambling, risky sexual behaviour, and excessive spending. Driving related incidences were commonly present in the Addictive Behaviours region. This suggests that, in addition to substance use and other addictive behaviours, education regarding risky driving may be a beneficial to reduce the occurrence of traffic offences and accidents attributed to substance abuse in the athlete population.

4.5.3 Violent Behaviours

The most frequent behaviour within the Violent Behaviours region was ‘physical assault by a single perpetrator’, found to have occurred in 23.6% of cases. The second most frequent behaviour within the region was ‘domestic abuse’, which occurred in 17% of cases in the sample. These two variables are closely located on the SSA plot, and domestic abuse often co-occurred with cases involving physical assault and violence. For example, this was identified in Case 157, in which the athlete he was found guilty of hitting and choking a man unconscious in a parking lot in 2007. In 2008, he was charged with another misdemeanour assault. In 2010, he was found guilty of felony assault. In 2014, he assaulted his girlfriend at their home where she suffered 18 broken bones, a broken nose, missing teeth, a fractured rib, and a ruptured liver. She alleged that he also tried to rape her. ‘Recreational drug use’ was predicted to be placed within the Addictive Behaviours region of the plot, but when examining the raw data, it was found that drug use was often present in cases involving physical violence. This was identified in cases such as Case 92, where in 2014 the athlete was found guilty of assaulting his ex-girlfriend after assaulting and threatening her. In 2016 his car was searched by the police and they reportedly found cocaine and traces of marijuana. This could be explained through research which suggests that the sporting environment can encourage masculinity and asserting dominance over others, which they are often copiously rewarded for (Crosset, 1999). Additionally, the results provide support for research which proposes that sport can often be used to construct and maintain masculinity (Bryson, 1987; Messner, 1988, 1990). It has also been suggested that violence and masculinity within the male athlete environment can increase violence towards women (Coakley, 2007; Nelson, 1994; Sabo & Runfola, 1980). The results support the work of Messner and Sabo (1994) who state that in such an environment, male athletes can become intolerant of others, and can be more susceptible to engaging in offending and risky behaviours such as violence, domestic abuse, and hate crime.

One theory which could be used to explain athlete violence and aggression in social settings is the reversal theory (Apter, 2001). This theory classifies aggressive and violent behaviour based on the motivation behind the behaviour (Grange & Kerr, 2011). The categories of violence are anger (telic; reactive aggression, feelings of provocation or unfairness; behaviours such as anger when driving), power (telic; cold and calculated violence; behaviours such as terror attacks), thrill (paratelic; proactive and to attain enjoyment; behaviours such as fights between gangs), and play (paratelic; recreational and for fun; behaviours such as contact sports). Within sport, play aggression is encouraged through aggressive acts within the rules or norms of the sport. The other three types of violence, anger, power and thrill, are not permitted

(Kerr, 2005). The reversal theory is dynamic (Grange & Kerr, 2011) and it acknowledges aggressive acts can change from one form to another as a result of changes in an athlete's emotion and motivation. An example of this could be aggression changing from play to anger during an illegal tackle carried out by an opponent (Grange & Kerr, 2010). The reversal theory also asserts the existence of protective frames (Apter, 2001; Gerkovich, 2001), limits which exist and act as psychological bubbles within which individuals participate in risky behaviour without feeling in danger; individuals can engage in high-arousal activities without feeling threatened (Grange & Kerr, 2011). According to the theory, to experience a protective frame an individual should be in a playful or paratelic state, which is characterised by a desire to be impulsive and to gain heightened arousal (Apter, 1992). Although Grange and Kerr (2011) argued that away from sports athletes may not feel protected in the same way and may be less likely to engage in aggressive and violent behaviour, protective states are not exclusive to sports and may also operate outside of the sporting context.

The findings from the current study suggest that violent behaviours within the athlete population need attention. Based on the previous research and the results of the current study, without intervention it would appear that long-standing team norms and attitudes regarding violence may be passed to new team members and therefore continuing the cycle of behaviour. Violent behaviour and domestic abuse education could prove to be a significant intervention to reduce these incidences in existing athletes, as well as future athletes, due to changes in team attitudes.

4.5.4 The development and co-occurrences of athlete offending and risky behaviour

Although this exploratory study does not identify *why* athlete offending and risky behaviours can occur, theories can be drawn upon to offer potential explanations of athlete engagement in offending and risky behaviour, and to aid in understanding behaviour co-occurrences. The following section discusses some possible theoretical explanations for the development of athlete offending and risky behaviours, and for behavioural co-occurrences.

Research involving adolescents has shown that risky behaviours are associated and tend to co-occur (Hair, Park, Ling & Moore, 2009). Risky behaviour in adolescents such as substance abuse, unprotected sex, and criminal behaviour can have an impact on the health and

wellbeing of adolescents and increase the likelihood of poor health and social outcomes in adulthood (Hair et al., 2009). Understanding risky behaviour in adolescents can aid in understanding the development of behaviours into adulthood. Many studies argue a single factor as the cause for risky behaviour such as a deviant nature or unhealthy lifestyle (Elliott, 1993; Jessor & Jessor, 1997; Jessor, 2008). However, other research suggests that there can be multiple underlying factors of risky behaviour in adolescents such as situational and behavioural issues (Byrnes, 2003). Risky behaviours such as substance use in adolescents have been found to be associated with adult substance abuse (D'Amico, Ellickson, Collins, Martino & Klein, 2005) and arrests in adulthood (Kempf-Leonard, Tracy & Howell, 2001). A large portion of the research into offending and risky behaviour development focuses on adolescents. However, this type of research can also be referred to when drawing conclusions of antisocial and risky behaviour in adulthood. As the majority of athletes begin participating in sports from a young age, it may be the case that athletes who engage in risky behaviours from a young age can carry this into adulthood, leading to co-occurrences of different behaviours with age.

Furthermore, Sutherland (1947) developed the Differential Association theory which states that an individual's criminal behaviour fluctuates dependant on whether their perceptions are favourable to crime, and that favourable attitudes towards offending behaviours are learned through interactions with others who find antisocial behaviour and criminality acceptable. Much research incorporates the presence of others as a variable when investigating causation of offending and deviance (Hochstetler, Copes & DeLisi, 2002), and the differential association theory has received a lot of support (Pratt, Cullen, Sellers, Winfree, Madensen, Daigle, Fearn & Gau, 2010). This is partly because of consistent findings that individuals are more likely to engage in offending behaviours if they associate with peers who commit crime and condone that type of behaviour (Alarid, Burton & Cullen, 2000; Costello & Vowell, 1999; Matsueda, 1982; Matsueda & Anderson, 1998; Warr, 1993; Warr & Stafford, 1991). However, it is important to note that, although associations with deviant peers are important, peer influence can ensue without the transference of attitudes from the model to the spectator (Warr & Stafford, 1991). Deviant peers potentially promote situational incentives and group processes which can encourage offending and deviant behaviour (Hindelang, 1976; Hochstetler, 2001; McCarthy, Hagan & Cohen, 1998). Thus, some of what appears to be the effects of learning by association may actually be attributed to direct influence of peers (Hochstetler, Copes & DeLisi, 2002). It is typically adolescents who are the subject of studies exploring differential association (Reiss, 1986; 1988) and so, although athletes of all ages typically spend an

abundance of time with teammates, the theory must be approached with caution when applying to adult athletes.

The Differential Association theory was further developed by Burgess and Akers (1966), who coined the Differential Reinforcement theory. Rather than focusing on learning from primary reference groups, Differential Reinforcement theory suggests that non-social factors can have an influence on criminal behaviour. For instance, drug taking could have an impact on an individual's mental health and physiological condition, leading to engagement in offending and further risky behaviours. This can contribute towards an explanation of how risky behaviours can co-occur in the athlete population. For instance, in the current study, high co-occurrence of addictive behaviours and driving offences, sexual behaviours and heavy recreational alcohol use, and violence and recreational drug use.

4.5.5 Implications of the Results

As previously discussed, the results suggest that a number of educational interventions delivered to existing and upcoming athletes, including collegiate and athletes, would be beneficial. Sexual consent and alcohol use are two of the primary concerns which have arisen from the data and should be a priority when developing educational programmes for athletes. Addiction also featured a great deal in many of the cases within the sample, especially alongside driving offences. As a result, this suggests that athletes should be educated in the consequences of addiction and addictive behaviours, which could also include risky driving behaviours. Additionally, physical violence and domestic abuse were prominent within the sample and so educational interventions should provide information on these types of behaviours, including recognition and prevention techniques. Many of the violent occurrences in the sample appear to be attributed to substance abuse and so this could be an element considered when developing educational materials regarding violent behaviour.

In addition to the proposed educational interventions, the findings highlight the need for transparency in the sporting sector. Currently, professional sporting bodies and collegiate sport sectors seem to be relatively defiant in terms of taking responsibility and ownership for the off-field behaviours of their athletes. It has been proposed that athlete privileges should be renounced, and athletes should be disallowed from further involvement in professional sport (Boswell, 2014). Elite athletes and sporting bodies have a position of power in which they can

reach a wide population. Athletes receiving privileges through leniency for offending and risky behaviour can communicate a detrimental message to the general population, as well as upcoming and aspiring athletes. Sporting bodies need to take responsibility and speak out about offending and risky behaviours of their athletes, rather than overlooking or concealing information.

Moreover, harsher custodial sentences or penalties, in line with the general population, should be consistently distributed to those of the elite athlete population engaging in offending behaviours. An example of the leniency which athletes can often receive for involvement in criminal activity is the case involving ex-Stanford University swimmer which was discussed in Chapter One (see section 1.2). Brock Turner was convicted in 2016 for sexually assaulting an unconscious woman. He received a six-month custodial sentence, but only served three and a half months in prison. The judge explained that a prison sentence would have a huge impact on him and there would be huge consequences for the sentence (Levin, 2016). The issue with leniency in cases of athlete offending is that, as outlined in the Social Learning theory (see Chapter One) the athlete population and the general public may see the lack of punishment given to the model or peer and perceive behaviours to be justified and less serious. Spectators of this model then gain a more accepting attitude towards the behaviour and replicate this behaviour themselves. The clemency often given to athletes does not portray a deterrence for the athlete or general population and could even encourage others to copy the behaviour, and so, stricter sentences alongside educational interventions and transparency of professional bodies may prevent athletes and the general population from engaging in offending and risky behaviours, and could aid in creating a new type of sporting culture.

Furthermore, as Benedict and Klein (1997) confirm there are no databases which confirm whether an individual accused of a sexual offence is an athlete. Nor, to the researcher's knowledge, are there any databases which report the involvement of athletes in other types of offending and risky behaviour. This could be facilitated by professional and collegiate sporting organisations collecting data on arrest and conviction rates of their athletes. Development of these databases would allow for a more efficient and reliable method of statistical data generation and research. They would also enable the identification of whether interventions and measures, which have been introduced to prevent and reduce athlete offending, are successful. Moreover, they may reveal areas which have not previously been identified as a problem to show new areas which need attention.

4.5.6 Limitations and Direction for Future Research

While the study represents a step forward towards an improved understanding of athlete offending and risky behaviour, it still bears a number of limitations which need to be addressed by future research. Firstly, as can be observed from Table 4.3, Cronbach's Alpha coefficient of reliability revealed that there were relatively low internal reliabilities for each of the themes, especially for the sexual behaviours theme. This means that there were moderately low associations between the facets within each region of the SSA plot. This suggests that cases generally could not be allocated into just one theme, but rather, cases included behaviours from across the offending and risky behaviour themes identified. This may mean that the themes identified are not an appropriate way to classify the behaviours and future research should identify more suitable classifications for athlete offending and risky behaviour. However, the regions identified are not typologies but are themes of behaviour which are present within the athlete sample. As a result, consistent with research aims, it is not necessary for each case to fit into just one behaviour theme. Rather, the exploratory method provides an idea of the prevalence and commonalities of offending and risky behaviours in the athlete population.

However, it must be considered that the data was collected from media sources and, although precautions were taken to ensure reliability, there are some limitations with the method of data collection that should be deliberated. For example, not all information may have been reported accurately, not all information may have been publicised, some information may have been fabricated and shared across media sources, and not all occurrences of offending and risky behaviours will be known to the media. Additionally, some risky behaviours and athletes from specific sports may receive more media attention than others. For example, it is likely that a sex scandal would gain more attention and public scrutiny than, for instance, more minor behaviours such as minor driving offences or binge drinking without the presence of other risky behaviours. Therefore, it is likely that some behaviours have not been reported in the media and results should be approached with caution.

Furthermore, as 70% of the cases were from the USA, with a comparatively low number of cases deriving from other countries, the results may not be generalisable and this impacts the cultural validity of the findings. Also, 31.6% of the sample were American Football players. Not only is this a popular, masculine team-sport, but it is also worth considering that there are differences in media reporting across cultures and countries and this could mean that athlete

risky behaviours are reported in some countries more than others due to interest and popularity. For instance, Western cultures tend to have more of a tabloid news culture, and there can be different levels of acceptance across cultures regarding different offending and risky behaviours such as sexual behaviour and substance use. This means that the results may not be applicable to other cultures and sport types. This may also mean that it is not possible to develop statistics which can be applied to the athlete population globally.

One issue to highlight is that American Football and Basketball players seem to have a disproportionately higher rate of arrests and convictions reported in the media. A potential explanation for this could be the proportion of African American males recruited into the predominantly white institutions (Bimper, Harrison & Clark, 2012), particularly in college institutions (Donner, 2005). Gramlich (2020) reported that black males are most likely to be incarcerated in the United States, with 2,727 black males per every 100,000 imprisoned in 2018. It is possible that long-standing racial issues may have influenced the results of the study, and so they should be approached with caution.

The method used for the study speaks to the exploratory nature of the current research which is working with first principles. As alluded to above, it would be more effective and reliable to attain data collected and provided by professional sporting bodies. If sporting bodies were to keep records of arrest and convictions of their athletes and make these publicly available, it would be a more consistent method of generating statistical data and would enable comparison to the general population in future research. It would also be beneficial to develop a sporting crime database to record arrest and conviction rates and which could be categorised into sport type, crime type, country, and sporting level.

Another limitation for the study is that the sample included a mixture of collegiate and professional athletes, with 33% of the sample being college level. One issue is that it can be assumed that professional athletes would naturally gain more media attention due to their popularity, meaning that some behaviours of lower-level athletes may go unreported. Another issue is that collegiate athletes tend to be younger and may not have had the same experiences as older professional athletes who have been in the sporting environment for longer and have presumably engaged in fewer risky behaviours. This could have altered the outcomes of the study. Further, collegiate and professional athletes tend to live different lifestyles. For example, it could be assumed that professional athletes have more money and are older, and so would potentially have access to more types of risky behaviour, i.e. ability to drive or access to

nightclubs, etc. Moreover, there may be attitudinal and behavioural shifts across generations of athletes which affect behaviour. Further research would benefit from splitting samples into collegiate and professional samples to examine the differences. This could give a more in-depth understanding of the effects that experience and lifestyle has on athlete risky behaviour.

Finally, despite the athlete population seemingly engaging in offending and risky behaviours more frequently, there is a lack of existing research which addresses and confirms this issue. Future research should investigate whether athletes actually offend at a higher rate than the general population. This would be facilitated by more reliable means of data collection, such as the databases which were proposed above, rather than through media reports. Furthermore, if future research were to confirm higher rates of offending in the athlete population, additional research should explore possible influences and predictor characteristics which can contribute towards higher susceptibility to offending in athletes. These predictor characteristics should consider personal, environmental, and situational characteristics.

4.5.7 Conclusion

To summarise, the current study gives an insight into the off-field behavioural issues which have been exhibited by the athlete population. Sexual behaviours were the predominantly reported type of offending and risky behaviours. These behaviours should be prioritised in terms of reducing and preventing future occurrences. Approaches to reducing addictive and violent offending and risky behaviours in the elite athlete population should also be pursued. Future research should use more reliable methods of data collection if sources of statistical data were improved and more accessible. The directions for future research which were identified inspired the following empirical chapter, Study Two of the current thesis (see Chapter Five).

CHAPTER FIVE

Study Two: The Predictor Characteristics of Risky Behaviour: A Comparison between Athletes and the General Population

5.1 Introduction

Due to the amount of cases of athlete offending and risky behaviour which arise in the media each year, it is imperative to understand whether the athlete population are actually more susceptible to engaging in risk-taking behaviours than the general population, or whether this is an illusion created by mass media appeal and interest in the off-field behaviours of this specialised population. This is an important issue as professional athletes can be viewed as role models (Biskup & Pfister, 1999; Kovacs & Doczi, 2015, 2019) and it is possible that current and aspiring athletes, in addition to the general population, may observe and imitate this behaviour (Diacin, Parks, & Allison, 2003). This can be explained through the use of Bandura's Social Learning Theory (1969, 1977) whereby vicarious reinforcement can occur in which an individual another being rewarded or punished when engaging in a specific behaviour (Stuart-Hamilton, 2007). For example, Diacin, Parks, and Allison (2003) state that athletes had more positive attitudes towards performance-enhancing drugs when they had observed another athlete use them and experience success.

It is also important to determine the contributing factors which can influence and predict risk-taking in the athlete population. Comparisons of a sample of the athlete population with the general population may enable the determination of whether there are any predictor characteristics which are present to a higher degree in the athlete population than the general population. However, in doing this, it is also vital to examine whether certain predictor characteristics identified are actually relevant to both populations as a whole. Increased understanding regarding the propensity of athletes to engage in risk-taking and the influences of these behaviours may lead to a clearer understanding regarding why the athlete population seem to be involved in a risky behaviour, and often offending behaviour, at a heightened rate to the general population. This increased understanding will not only improve and build on

previous research in the area, which is currently sparse, but will also develop knowledge required to aid reducing future incidents of athlete engagement in risky behaviours. This would occur through the development of educational and training programmes for existing and upcoming athletes at all levels. In turn, this may help to safeguard vulnerable individuals and reduce the number of victims affected by athlete-initiated offending and risky behaviours.

5.2 Present Study

The majority of previous research on the risky behaviour of athletes focuses on amateur and collegiate athletes, and the effects of one predictor characteristic on specific types of risky behaviour, i.e. personality differences and alcohol consumption of college athletes and non-athletes (Mastroleo et al., 2013). However, such research has failed to determine and offer sufficient explanation for the increased risky behaviours which athletes can often engage in. Furthermore, researchers have indicated that there are many aspects which can affect risky behaviour in athletes. Yet, there is a lack of literature which considers multiple possible predictor characteristics of general risk-taking. Instead previous research has tended to concentrate on the relationship between single predictor characteristics, such as hyper-masculinity, and specific risky behaviours, such as sexual aggression (Gage, 2008).

Furthermore, there is a lack of research which investigates the general risk-taking of the athlete population, but instead tends to focus on specific types of risky behaviours (e.g. Cross et al., 1998; Faurie, Pontier & Raymond, 2004; Gage, 2008; Huang et al., 2010; Kalichman et al., 2003; Kuin et al., 2015; Marasescu, 2014; Yusko et al., 2008). Previous work has also failed to investigate multiple personal characteristics which may predict or contribute towards higher susceptibility to engaging in risky behaviour in the athlete population (e.g. Cross et al., 1998; Crossett, 1999; Mastroleo et al, 2013; Pappas, McKenry & Catlett, 2004; Shavers et al, 2015; Smith & Hattery, 2006). Additionally, it is unclear from this previous research how general risk-taking predictor characteristics in athletes may differ from those of the general population. These neglected areas of research have generated questions regarding whether athletes are generally more susceptible to risk-taking than the non-athletic general population and whether previously identified predictor characteristics of risk-taking apply in the athlete population. Therefore, the purpose of the current study was to establish whether athletes are generally higher risk-takers than the general population, and if so, what can contribute towards heightened risk-taking in athletes.

To achieve this, the study had three main objectives. The first objective was to establish if the athlete population were greater risk-takers than the general population. It was theorised that athletes would score higher for general risk-taking than the general population. Much of the previous literature supports a relationship between athletic participation and an increased likelihood of engaging in risky behaviour (Cross et al., 1998; Gage, 2008; Huang, Jacobs & Derevensky, 2010; Kreager, 2007; Mastroleo et al., 2013; O'Brien & Lyons, 2000; Shavers, Baghurst & Finkelstein, 2015; Yusko et al., 2008; Zuckerman, 1983). It may be possible that such increased risk-taking tendencies can lead to the athlete involvement in risky behaviours including antisocial behaviour and criminal offending, which is regularly publicised in the media.

The second objective of the study was to distinguish the differences in the athlete and general population, and the characteristics they exhibit. Several potential predictor characteristics of risk-taking have been identified from previous research: age (e.g. Gardner & Steinberg, 2005; Huang et al., 2010; Kretsch, Mendle & Harden, 2014), personal sense of power (e.g. Finkelstein, Baghurst & Shavers, 2015; Pappas, 2012; Shavers, Baghurst & Finkelstein, 2015), peer influence (e.g. Grossbard et al., 2009; Holland & Andre, 1994; Murnen & Kohlman, 2007; Sparkes et al., 2007), masculinity (e.g. Connell, 1995; Crosset, 1999; Gage, 2008; Kreager, 2007; Messner, 1992), personality differences (e.g. Raab & Johnson, 2004; Sher & Trull, 2011; Zietsch et al., 2010), sensation-seeking (e.g. Cross et al., 1998; Deckman & DeWall, 2011; Kalichman et al., 2003; Mastroleo et al., 2013; Ulleberg & Rundmo, 2003; Yusko et al., 2008; Zuckerman, 1983), aggression (e.g. Grange & Kerr, 2011; Kuin et al., 2015; Marasescu, 2014; Prehn, et al., 2013; Ulleberg & Rundmo, 2003), psychopathy (e.g. Buckholtz et al., 2010; Stanger et al., 2013), and substance abuse (e.g. Huang et al., 2010; O'Brien & Lyons, 2000; Scott-Sheldon et al., 2008; Shorey et al. 2015). It is important to understand the differences of each sample and the characteristics they possess. Specific characteristics can influence risk-taking tendencies and risky behaviour as discussed above, but it is not clear whether these will be present to the same degree in the athlete and general populations.

Finally, the third objective of this study was to establish whether the model of predictor characteristics was associated with general risk-taking, and if so, to identify which characteristics were the largest predictors. Interpretations can then be made based on different levels of these characteristics within each population. For example, there may be particular characteristics which influence participation in sport, for example, aggression levels may influence an individual to be involved in contact sport, and lead to heightened aggression off

the field. Aggressive behaviours are typically rejected as a deviance from social norms in the general population but then can be socially accepted in the context of athletes due to the on-field success with aggression (Kreager, 2007). There may also be characteristics which could develop with continued sport participation, such as increased antisocial behaviour and alcohol use due to sport team culture and peer influence.

To date, to the best of the current researchers' knowledge, no previous research has investigated the effects of a range of predictor behaviours of general risk taking in a sample of athletes and compared them to the general population to identify differences in contributing factors to risk taking. The study is novel and exploratory in nature, aiming to create the foundations for a new type of research into the world of athletes. On the basis of previous research, the objectives were:

4. To establish whether athletes are more likely to engage in general risk taking than the general population.
5. To understand how previously identified predictor characteristics of general risk-taking compare within the athlete and general populations.
6. To examine the relationship between different predictor characteristics to risk taking by looking at whether and how they are associated with general risk-taking scores.

5.3 Method

5.3.1 Sample

A sample of athletes ($N = 63$; 47 males and 16 females) aged 19-68 years ($M = 28.08$, $SD = 7.71$), and a sample of the general population ($N = 416$; 187 males and 229 females) aged 16-81 years ($M = 32.80$, $SD = 12.78$) were recruited for the study. However, due to the length of the questionnaire, the sample reduced as the online questionnaire progressed, meaning that the sample size differed on each scale; each section regarding specific scales outlines the sample size. Of the athlete population, 52 athletes completed the full questionnaire ($N = 53$; 37 males and 15 females). Of the general population, 340 participants completed the full questionnaire ($N = 340$; 143 males and 197 females). 18 questionnaire responses were unusable due to the amount of missing data, so these were not included.

Out of the 63 athlete participants $N = 43$ had been paid for playing sports, whilst $N = 20$ had not been paid. Of the 43 athletes who had been paid for sports participation, $N = 24$ had received a salary from playing sports, whilst $N = 19$ had received match fees only. When the athlete sample were asked if they had played to the highest level in their sport, $N = 24$ responded that they had, whilst $N = 29$ had not.

Both samples were recruited through volunteer sampling as participants responded to invitations to complete online questionnaires, which were distributed via social media platforms, online forums, and through advertisements in public areas. The criteria for athletes to be included in the sample was that they had to have competed in their sport for some kind of monetary value or award. The criteria for individuals to be included in the general population sample was for them to be at least 16 years of age and not have any involvement in sport beyond typical recreational interest or participation.

5.3.2 Design

A between-groups design was employed, with each participant only completing one of the two questionnaires: the athlete or general population questionnaire. The independent variables of the study were age, gender, sexual behaviours (Sexual Sensation Seeking Questionnaire & Risky Sexual Behaviour Questions), power over the opposite sex and friends (Personal Sense of Power Scale), masculinity and femininity levels (Personal Attributes Questionnaire), psychopathy (Self-Report Psychopathy III – Short Form), personality differences (Zuckerman-Kuhlman Personality Questionnaire Cross-Cultural 50-item version), and alcohol expectancy (Comprehensive Alcohol Expectancy Questionnaire). The dependent variables of the study were the five domains of the Domain-Specific Risk-Taking scale (DOSPERT; social risk, recreational risk, financial risk, health and safety risk, and ethical risk).

5.3.3 Materials

Participants were instructed to follow the link to read the Participant Information Sheet (see Appendix B1 & B2) and Consent Form (see Appendix B3) carefully before proceeding. An online questionnaire was designed (see Appendix B4) and distributed online using Qualtrics online software. The online questionnaire was designed based on predictor variables of athlete risky behaviour previously identified by literature. Additional information regarding the

selection of the following scales can found in Prince, Mojtahedi, Synnott and Ioannou (2018). The general population questionnaire had 229 items and the athlete population questionnaire had 233 items. The following scales were selected and utilised:

- i) ***Demographic questions*** – the general population answered 12 demographic questions, whereas the athlete population answered 16 demographic questions. Some of these questions were the same for both sample types, however there were also demographic questions which were specific to each sample.
- ii) ***Domain-Specific Risk-Taking Scale*** (DOSPERT; Blais & Weber, 2006) – consists of 30 items and measures general risk-taking within five domains: Social, Recreational, Financial, Health and Safety, and Ethical risk. The scale is measured using a 7-point Likert scale (1= extremely unlikely, 7= extremely likely).
- iii) ***Sexual Sensation Seeking Scale – Revised*** (Kalichman, Adair, Rompa, Multhauf, Johnson & Kelly, 1994) – consists of 11 items and is calculated as a whole total score. The scale is measured using a 4-point Likert scale (1= not at all like me, 4= very much like me).
- iv) ***Additional sexual behaviour questions*** – consists of six categorical yes/no questions related to previous sexual behaviour of the participant, created by the researcher. These questions were based on sexual behaviours which were commonly identified in the cases used in Study One.
- v) ***Personal Sense of Power*** (Anderson, John & Keltner, 2012) – consists of eight items and measures the participants' personal sense of power over a specific population or environment. The scale is measured using a 7-point Likert scale (1= disagree strongly, 7= agree strongly). The research included the scale twice, once with questions related to power over the opposite sex, and again relating to power over friends. Hence, 16 items were included in the study.
- vi) ***Personal Attributes Questionnaire*** (Spence, Helmreich & Stapp, 1974) – consists of 24 items and includes four subscales: Masculinity (or instrumentality), Femininity (or expressivity), Androgyny, and Undifferentiated. The scale is measured on a 5-point Likert scale (A – E), where the participant is presented with two extremes and they must place themselves on the scale. The research used the calculated scores for the masculinity and femininity scales, as well as participants' overall personal attribute classification (masculine, feminine, androgynous, or undifferentiated). Those who scored high for both masculinity and femininity were

classed as androgynous, whilst those who scored low for both were classed as undifferentiated.

- vii) ***Self-Report Psychopathy III- short form*** (SRP-III-SF; Paulhus, Neumann, & Hare, in press) – consists of 29 items and includes four subscales: Interpersonal (Int), Affective (Aff), Lifestyle (Life), and Antisocial (Anti). The scale is measured on a 5-point Likert scale (1= disagree strongly, 5= agree strongly).
- viii) ***Zuckerman-Kuhlman Personality Questionnaire Cross-Cultural 50-item version*** (ZKPQ-50-CC; Aluja, Rossier, García, Angleitner, Kuhlman, & Zuckerman, 2006) – consists of 50 items and includes five subscales: Impulsive Sensation-Seeking (ImpSS), Neuroticism-Anxiety (N-Anx), Aggression-Hostility (Agg-Host), Activity (Act), and Sociability (Sy). The scale is measured dichotomously using true/false responses.
- ix) ***Comprehensive Alcohol Expectancy Questionnaire*** (CAEQ; Demmel & Hagen, 2003) – consists of 51 items and includes five subscales: Social Assertiveness and Positive Affect (SAPA), Tension Reduction (TR), Cognitive Impairment and Physical Discomfort (CIPD), Aggression (Agg), and Sexual Enhancement (SE). The scale is measured on a 5-point Likert scale (1= not at all, 5= definitely).

After completing the questionnaire, participants were presented with a debrief sheet (see Appendix B5) to explain the research in more detail and were signposted contact details of the researcher and helplines if required. Once data collection was completed, the responses were exported to and analysed using IBM SPSS 24.

5.3.4 Procedure

After the appropriate scales were identified and the questionnaires were developed on Qualtrics, links for each of the questionnaires were distributed through various online platforms and in public areas. Participants were instructed to follow the link and read the participant information sheet and consent form carefully before completing the questionnaires. Participants were required to read the instructions prior to each set of questions to let them know how what the set of questions was about, and how to answer them (e.g. letting them know if the Likert scale value had changed from the previous set of questions). Once participants had completed the questionnaire, they were presented with a debrief sheet to explain the research

in more detail and were signposted contact details of the researcher and other potentially helpful helplines. The questionnaires took approximately 30 minutes to fully complete, and once responses were submitted, they were entered onto the Qualtrics system. Participants were able to partially complete the questionnaire and return to it later, within seven days, if required, using a personalised link provided to them.

5.3.5 Analysis

A variety of descriptive and inferential statistics were used to analyse the responses of the athlete and general population samples. A series of Multivariate Analysis of Variance (MANOVA) tests were conducted to test for significant differences between population types in mean scores of the DOSPERT scale and also the predictor characteristic scales. Chi-squared tests were used for non-parametric data such as the Risky Sexual Behaviour Questions, and Personal Attributes classifications. Furthermore, a number of Multiple Regression tests were conducted to test for significant associations between predictor variables and each of the DOSPERT risk domains.

5.3.6 Ethical Considerations

The research received full ethical approval from SREP at the University of Huddersfield prior to data collection. The research was performed in accordance with the BPS ethical guidelines (BPS Code of Human Research Ethics, 2014).

Participants were able to give informed consent as they were provided with a Participant Information Sheet and a Consent Form outlining their rights, along with contact details of the researcher, prior to and after completing the questionnaire. Participants were informed that they had the right to withdraw from the study at any point during the questionnaire, without giving reason, but would not be able to have their response withdrawn after submission due to the anonymity of the responses. Participants remained anonymous throughout the research; no names were recorded or any other potential identifying information from either sample. Neither were any names or places of the sport team/club the athlete sample were involved with recorded. Raw data was encrypted using password protection and was only accessible by the researcher. It was not expected that participants would suffer any psychological distress whilst completing the questionnaire, but in the debrief sheet they were offered the contact telephone

number of the Samaritans (UK and ROI) and the researcher's contact details who could provide alternate helpline details for those who were participating outside of the UK and Ireland if required.

5.4 Results

The purpose of the study was to firstly compare the general risk-taking scores of the athlete sample with those of the general population, to determine whether there was a significant difference between the two groups. Secondly, the study aimed to look at the scores of previously identified predictor characteristics of risk-taking behaviour to establish if there were significant differences in the presence of these characteristics in the athlete population and the general population. Thirdly, relationships between the predictor characteristics scores and general risk-taking scores from both the athlete and general population were then observed to see if there were significant correlations between them. In doing this, it was possible to examine whether there were differences in the relationships of predictor characteristics and general risk-taking in each of the samples.

5.4.1 Comparing the General Risk-Taking of Athletes and the General Population

5.4.1.1 Athletes vs General Population

The first objective of the study was to compare the general risk-taking of the athlete ($N=63$; 47 males and 16 females) and general population ($N=416$; 187 males and 229 females). The descriptive statistics and internal consistency of the athlete and general population are displayed in Table 5.1 below.

Table 5.1 Descriptive statistics and reliability of DOSPERT subscale scores

	<i>Athlete</i>					<i>General population</i>				
	<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α	<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Social	32.32	5.69	13-42	6-42	.68	31.65	5.83	10-42	6-42	.63
Rec	24.24	8.02	6-42	6-42	.70	20.42	9.29	6-42	6-42	.81
Fin	17.97	8.23	6-37	6-42	.81	13.92	7.25	6-38	6-42	.82
H&S	23.38	7.81	6-39	6-42	.68	20.71	7.35	6-42	6-42	.66
Eth	16.62	6.71	6-33	6-42	.68	14.28	5.97	6-42	6-42	.63

To explore whether athletes are generally more susceptible to engaging in risk-taking than the general population each of the five domains within the Domain-Specific Risk-Taking Questionnaire (DOSPERT) subscale scores were compared via a Multivariate Analysis of Variance (MANOVA). There was a statistically significant difference in general risk-taking between the athlete and general population, $F(5, 473) = 4.32, p = .001$; Wilk's $\Lambda = .96$, partial $\eta^2 = .04$, with a small effect size. Population type was found to have a significantly significant effect on recreational risk ($F(1, 477) = 9.55, p = .002$, partial $\eta^2 = .02$) with a small effect size, financial risk ($F(1, 477) = 16.41, p = .000$, partial $\eta^2 = .03$) with a small effect size, health and safety risk ($F(1, 477) = 7.13, p = .01$, partial $\eta^2 = .02$) with a small effect size, and ethical risk ($F(1, 477) = 8.09, p = .01$, partial $\eta^2 = .02$) with a small effect size. There was no significant difference between population type and social risk. The results reveal that athletes scored significantly higher for all DOSPERT risk domains except Social Risk. Although not a significant difference, athletes also scored higher for Social Risk.

5.4.1.2 Gender and Athletic Involvement

The athlete ($N = 63$; 47 males and 16 females) and general population ($N = 416$; 187 males and 229 females) were split into male and female gender groups. The means, standard deviations, and Cronbach's α of the DOSPERT scores for each gender split population are displayed in Table 5.2 below.

Table 5.2 Descriptive statistics for the DOSPERT scores of each sample when split by gender.

	Male athletes			Female athletes			Male GP			Female GP		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Social	32.87	5.62	.66	30.69	5.76	.71	31.96	5.83	.62	31.39	5.82	.64
Rec	25.51	7.94	.69	20.50	7.25	.64	22.11	9.51	.82	19.04	8.89	.79
Fin	19.23	8.62	.82	14.25	5.70	.65	15.74	8.33	.83	12.44	5.85	.76
H&S	25.53	6.55	.56	17.06	7.97	.67	22.56	7.18	.63	19.20	7.15	.66
Eth	17.81	6.45	.63	13.13	6.41	.75	14.89	6.20	.62	13.79	5.75	.65

The relationship between gender and DOSPERT scores of the athlete and general population were investigated using a MANOVA. There was a statistically significant difference in the general risk-taking of each population split by gender, $F(15, 1301) = 5.09$, $p = .000$, Wilk's $\Lambda = .85$, partial $\eta^2 = .05$, with a small effect size. Similar to the results found between athletes and the general population, when split by gender statistically significant differences were found between population type and recreational risk ($F(3, 475) = 8.49$, $p = .000$, partial $\eta^2 = .05$) with a small effect size, financial risk ($F(3, 475) = 14.87$, $p = .000$, partial $\eta^2 = .09$) with a medium effect size, health and safety risk ($F(3, 475) = 15.79$, $p = .000$, partial $\eta^2 = .09$) with a medium effect size, and ethical risk ($F(3, 475) = 6.29$, $p = .000$, partial $\eta^2 = .04$) with a small effect size. There was no significant difference between population type and social risk.

Tukey's HSD post-hoc tests revealed that for recreational risk scores there were significant differences between male athletes and female general population ($p = .000$), and between the male and female general population ($p = .003$). For financial risk, there were statistically significant differences found between male athletes and the male general population ($p = .02$), male athletes and the female general population ($p = .000$), and the male and female general population ($p = .000$). There were also statistically significant differences found in health and safety risk scores between male and female athletes ($p = .000$), male athletes and the female general population ($p = .000$), female athletes and the male general population ($p = .02$), and the male and female general population ($p = .000$). Finally, for ethical risk scores there were statistically significant differences found between male and female athletes ($p = .04$), male athletes and the male general population ($p = .02$), and male athletes and the female general population ($p = .000$).

5.4.2 Comparing Predictors of General Risk-Taking in the Athlete and General Population

The second objective of the study was to compare the levels of predictors of risk-taking in the athlete and general population. In the previous section, significant differences were found between the athlete and general population for DOSPERT scores. The current section explores the levels of previously identified predictors of risk-taking in each population type, accounting for gender differences. The scores of the athlete and general population for these predictor characteristics of risk-taking behaviour were collected using the scales specified earlier (see section 5.3.3), and the following sections investigate the differences between these groups for the scores of each of these scales.

5.4.2.1 Sexual Sensation-Seeking

The descriptive statistics of the Sexual Sensation-Seeking (SSS) scores of the athlete population ($N= 60$; 45 males and 15 females) and those of the general population ($N= 384$; 173 males and 211 females) are presented in Table 5.3 below.

Table 5.3 Descriptive statistics and reliability of SSS scores.

	<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Male athlete	29.51	5.63	20-44	11-44	.74
Female athlete	24.47	7.94	12-40	11-44	.89
Male GP	27.04	6.52	11-41	11-44	.83
Female GP	22.58	6.80	11-44	11-44	.87

A one-way between groups analysis of variance (ANOVA) was conducted to explore the impact population type on SSS scores, for which there was a statistically significant difference found, $F(2, 440) = 21.81, p = .000$. The difference in mean scores between groups was quite large (Cohen, 1988); the effect size, which was calculated using eta squared, was .13. Post hoc comparisons using Tukey's HSD test indicated a significant difference in the SSS scores of male athletes and the female general population ($p = .000$) with male athletes scoring

higher. A significant difference was also found between male and female general population ($p = .000$) with males scoring higher.

5.4.2.2 Risky Sexual Behaviour

As an extension of the SSS previously analysed, the six additional dichotomous risky sexual behaviour questions were then analysed. Table 5.4 illustrates that a higher percentage of the male athletes ($N= 43$) engaged in each of the six risky sexual behaviours than female athletes ($N=15$) and the general population ($N= 382$; 171 males and 211 females).

Table 5.4 Percentage of responses of each population for the Risky Sexual Behaviour questions, with standardised residuals (SR) from the chi-square tests.

Q	Male athlete				Female athlete				Male GP				Female GP			
	Yes	SR	No	SR	Yes	SR	No	SR	Yes	SR	No	SR	Yes	SR	No	SR
1	27.9	3.6	72.1	-1.2	6.7	-.4	93.3	.1	17.5	3.0	82.5	-1.0	.09	-4.2	99.1	1.4
2	51.2	4.6	48.8	-2.3	13.3	-.6	86.7	.3	22.2	.6	77.8	-.3	12.3	-2.5	87.7	1.2
3	48.8	2.1	51.2	-1.4	33.3	.2	66.7	-.1	34.5	.8	65.5	-.5	24.6	-1.7	75.4	1.1
4	79.1	1.7	20.9	-2.0	53.3	-.3	46.7	.4	60.8	.2	39.2	-.3	55.0	-.9	45.0	1.0
5	27.9	4.5	72.1	-1.3	6.7	-.2	93.3	.1	7.0	-.5	93.0	.2	5.2	-1.5	94.8	.5
6	53.5	1.1	46.5	-1.0	20.0	-1.3	80.0	1.1	46.8	.9	53.2	-.8	37.9	-1.0	62.1	.8

Q1. Have you ever paid for sex? Q2. Have you ever engaged in group sex? Q3. Have you ever recorded yourself having sex? Q4. Have you ever sent an explicit picture of yourself to another person? Q5. Have you ever sent an explicit picture of another person without their consent? Q6. Have you ever cheated on a partner?

A chi-square test of association was conducted on the responses of each Risky Sexual Behaviour question within each sample. For question 1, chi-square (3) = 44.61, $p = 0.000$, revealing that there was a statistically significant relationship between sample type and whether an individual had paid for sex. Phi and Cramer's $V = .32$, showing a moderate strength of association. Post hoc tests showed that the actual frequency of male athletes who had paid for sex was higher than expected; the standardised residual (3.6) was higher than the critical value (± 1.96). This revealed that more male athletes had paid for sex than expected and were overrepresented in this classification. Similar results were found for the male general population, with a standardised residual of 3.0, revealing that more of the male general population had paid for sex than expected. Contrastingly, the actual frequency of female general population who had paid for sex was lower than expected; the standardised residual (-

4.2) was lower than the critical value, showing that fewer members of the female general population had paid for sex than expected.

For question 2, chi-square (3) = 34.82, $p = .000$, showing that there was a statistically significant association between sample type and whether an individual had engaged in group sex. Phi and Cramer's $V = .28$, showing a small strength of association. Post hoc tests revealed that the actual frequency of male athletes who had engaged in group sex was higher than expected; the standardised residual (4.6) was higher than the critical value. This showed that more male athletes had engaged in group sex than expected and were overrepresented in this classification. Additionally, it was also found that fewer male athletes than expected had not engaged in group sex, with a standardised residual of -2.3. Furthermore, fewer of the female general population than expected had not engaged in group sex, with a standardised residual of -2.5.

For question 3, chi-square (3) = 11.37, $p = .01$, showing that there was a statistically significant association between sample type and whether an individual had recorded themselves having sex. Phi and Cramer's $V = .16$, showing a small strength of association. Post hoc tests revealed that the actual frequency of male athletes who had recorded themselves having sex was higher than expected; the standardised residual (2.1) was higher than the critical value. This showed that more male athletes had recorded themselves having sex than expected and were overrepresented in this classification.

For question 4, chi-square (3) = 8.99, $p = .03$, revealing that there was a statistically significant relationship between sample type and whether an individual had sent an explicit picture of themselves to another person. Phi and Cramer's $V = .14$, showing a small strength of association. Post hoc tests showed that the actual frequency of male athletes who had not sent an explicit of themselves to another person was lower than expected; the standardised residual (-2.0) was lower than the critical value. This showed that fewer male athletes had not sent explicit pictures of themselves than expected and were underrepresented in this classification.

Tests for question 5 revealed chi-square (3) = 25.10, $p = .000$, showing that there was a statistically significant association between sample type and whether an individual had sent an explicit picture of someone else to others without their consent. Phi and Cramer's $V = .24$, showing a small strength of association, Post hoc tests showed that the actual frequency of male athletes who had sent an explicit picture of another person without consent was higher

than expected; the standardised residual (4.5) was higher than the critical value. This revealed that more male athletes had sent explicit pictures of another person without consent than expected and were overrepresented in this classification.

Finally, for question 6, chi-square (3) = 8.33, $p = .04$, showing that there was a statistically significant association between sample type and whether an individual had cheated on their partner, though the strength of association was low with Phi and Cramer's $V = .14$. Post hoc tests revealed that none of the sample types were over or underrepresented in the classifications of whether they had or had not cheated on a partner, and results were as expected.

5.4.2.3 Personal Sense of Power

The descriptive statistics of the Personal Sense of Power scores of athletes ($N = 57$; 42 males and 15 females) and the general population ($N = 366$; 161 males and 205 females) are displayed in Table 5.5 below.

Table 5.5 Descriptive statistics and reliability of the Personal Sense of Power scores.

		<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Power over opposite sex	Male athlete	36.71	5.59	27-49	8-56	.69
	Female athlete	36.40	7.54	24-52	8-56	.69
	Male GP	33.89	7.65	8-55	8-56	.82
	Female GP	38.35	8.08	12-56	8-56	.87
Power over friends	Male athlete	39.90	5.72	30-54	8-56	.72
	Female athlete	38.07	6.52	28-48	8-56	.68
	Male GP	37.33	7.01	14-56	8-56	.78
	Female GP	39.95	6.78	13-56	8-56	.81

To explore the differences in Personal Sense of Power scores of the athlete and general population, a MANOVA was performed, for which a statistically significant difference was found, $F(6, 836) = 5.27$, $p = .000$, Wilk's $\Lambda = .93$, partial $\eta^2 = .04$, with a small effect size. There was a statistically significant difference between population type and scores for power over the opposite sex ($F(3, 419) = 10.11$, $p = .000$, partial $\eta^2 = .07$), with a medium effect size,

and also for scores for power over friends ($F(3, 419) = 4.93, p = .002$, partial $\eta^2 = .03$), with a small effect size.

Post hoc comparisons using Tukey's HSD test indicated a significant difference for scores for power over the opposite sex between male and female general population ($p = .000$), with the female general population scoring higher, and also the highest overall. For power over friends, again there was a statistically significant difference between male and female general population ($p = .001$), with females scoring higher and also the highest overall. There were no significant differences between athletes and the general population for either variable.

5.4.2.4 Personal Attributes

A chi-square test for independence was conducted on the responses to the Personal Attributes Questionnaire within the athlete ($N = 57$; 42 males and 15 females) and the general population ($N = 362$; 158 males and 204 females). The percentages of the attribute classifications within each sample can be seen in Table 5.6 below, along with standardised residuals.

Table 5.6 Percentage of Personal Attribute classification of each population, with standardised residuals (SR) from the chi-square tests.

Classification	Male athlete (%)	SR	Female athlete (%)	SR	Male GP (%)	SR	Female GP (%)	SR
Masculine	23.8	3.3	13.3	.6	8.9	.0	5.4	-1.7
Feminine	16.7	-3.0	40.0	-.5	39.9	-1.7	63.7	3.0
Androgynous	35.7	2.4	26.7	.6	22.2	.7	13.7	-1.9
Undifferentiated	23.8	.2	20.0	-.2	29.1	1.8	17.2	-1.6

Chi-square (9) = 50.43, $p = .000$, revealing that there was a statistically significant association between population type and personal attribute classifications. Cramer's $V = .20$, meaning that the strength of association was small. Post hoc tests reveal that the actual frequency for male athletes classed as masculine was not as expected; the standardised residual (3.3) was greater than the critical value (± 1.96). This revealed that there were more male athletes who were classified as masculine than were expected, and that male athletes were overrepresented in the classification. In addition, the actual frequency of male athletes who

were classed as feminine was not as expected; the standardised residual (-3.0) was lower than the critical value (+/-1.96). This showed that fewer male athletes were classed as feminine than were expected, and male athletes were underrepresented in the classification. Furthermore, the actual frequency for male athletes classed as androgynous was not as expected; the standardised residual (2.4) was higher than the critical value (+/-1.96), showing that more male athletes were classified as androgynous than expected and were overrepresented in this classification. Finally, the actual frequency for the female general population was not as expected; the standardised residual (3.0) was higher than the critical value (+/-1.96). This showed that more females were classed as feminine than expected and they were overrepresented in this classification.

5.4.2.5 Masculinity and Femininity

As masculinity and femininity levels were predominant in much of the existing literature, these subscales were also analysed separately. Personal attribute classifications were initially treated as categorical variables in the previous section (section 5.4.2.4), but the masculinity and femininity scale variables were then treated as continuous variables. The descriptive statistics of the masculinity and femininity scores of athletes ($N = 57$; 42 males and 15 females) and those of the general population ($N = 362$; 158 males and 204 females) are displayed in Table 5.7 below.

Table 5.7 Descriptive statistics and reliability of Masculinity and Femininity scores.

		<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Male athlete	Masculinity	24.60	3.57	18-32	0-32	.64
	Femininity	21.67	4.05	12-29	0-32	.68
Female athlete	Masculinity	23.20	5.27	15-32	0-32	.71
	Femininity	22.93	7.14	12-32	0-32	.91
Male GP	Masculinity	20.99	4.98	4-32	0-32	.74
	Femininity	22.13	4.83	0-32	0-32	.76
Female GP	Masculinity	19.38	5.15	5-32	0-32	.75
	Femininity	24.20	4.85	0-32	0-32	.78

A MANOVA was conducted to test the differences in masculinity and femininity scores of the athlete and general population samples, for which a statistically significant difference was found, $F(6, 828) = 11.61, p = .000$, Wilk's $\Lambda = .85$, partial $\eta^2 = .08$, with a medium effect size. Significant differences were found between population type and masculinity ($F(3, 415) = 14.93, p = .000$, partial $\eta^2 = .10$) with a medium effect size, and between population type and femininity ($F(3, 415) = 6.79, p = .000$, partial $\eta^2 = .05$) with a small effect size.

Post hoc comparisons using Tukey's HSD test indicated a significant difference for scores for masculinity between male athletes and the male general population ($p = .000$), between male athletes and the female general population ($p = .000$), between female athletes and the female general population ($p = .02$), and between the male and female general population ($p = .01$). Male athletes scored the highest for masculinity than the other sample types. For femininity, significant differences were identified between male athletes and the female general population ($p = .01$), and between the male and female general population ($p = .000$) with general population females scoring higher than all other sample types.

5.4.2.6 Psychopathy

The descriptive statistics of the psychopathy scores of athletes ($N = 55$; 40 males and 15 females) and those of the general population ($N = 352$; 153 males and 199 females) are displayed in Table 5.8 below.

Table 5.8 Descriptive statistics and reliability of the Psychopathy scores.

		<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Male athletes	Interpersonal	15.78	4.82	7-29	7-35	.82
	Affective	19.63	5.45	8-29	7-35	.82
	Lifestyle	21.50	5.27	12-32	7-35	.82
	Antisocial	15.50	6.37	8-29	8-40	.88
Female athletes	Interpersonal	12.93	5.64	7-27	7-35	.89
	Affective	15.07	5.09	7-22	7-35	.83
	Lifestyle	16.07	5.27	7-23	7-35	.82
	Antisocial	12.53	7.35	8-33	8-40	.95
	Interpersonal	13.48	5.58	7-31	7-35	.86

Male GP	Affective	16.09	5.17	7-29	7-35	.77
	Lifestyle	18.16	5.48	7-34	7-35	.82
	Antisocial	13.21	5.64	8-34	8-40	.86
Female GP	Interpersonal	11.41	4.63	7-29	7-35	.83
	Affective	12.87	5.18	7-35	7-35	.85
	Lifestyle	15.36	5.40	7-35	7-35	.84
	Antisocial	11.28	4.82	8-35	8-40	.85

To investigate the differences between the psychopathy scores of each population type, a MANOVA was performed, for which it was found that there was a statistically significant difference, $F(12, 1059) = 6.32, p = .000$, Wilk's $\Lambda = .83$, partial $\eta^2 = .06$, with a medium effect size. Statistically significant differences were found between population type and interpersonal scores ($F(3, 403) = 10.44, p = .000$, partial $\eta^2 = .07$) with a medium effect size, affective scores ($F(3, 403) = 23.80, p = .000$, partial $\eta^2 = .15$) with a large effect size, lifestyle scores ($F(3, 403) = 17.83, p = .000$, partial $\eta^2 = .12$) with a medium effect size, and antisocial scores ($F(3, 403) = 8.36, p = .000$, partial $\eta^2 = .06$) with a medium effect size.

Post hoc comparisons using Tukey's HSD test revealed significant differences for interpersonal scores between male athletes and the female general population ($p = .000$), and male and female general population ($p = .001$). Results show that male athletes scored the highest for interpersonal psychopathy scores. For affective scores there were found to be significant differences between male and female athletes ($p = .02$), male athletes and male general population ($p = .001$), male athletes and the female general population ($p = .000$), and the male and female general population ($p = .000$). Male athletes were found to have scored highest for affective psychopathy. For lifestyle scores there were found to be statistically significant differences between male and female athletes ($p = .01$), male athletes and the male general population ($p = .003$), male athletes and the female general population ($p = .000$), and between the male and female general population ($p = .000$). Again, male athletes were found to have scored higher than all other sample types for lifestyle psychopathy. Finally, statistically significant differences were found between the antisocial scores of male athletes and the female general population ($p = .000$), and the male and female general population ($p = .005$). As with the other psychopathy traits, male athletes were found to have scored higher than the other sample types for antisocial psychopathy.

5.4.2.7 Personality

The descriptive statistics of the personality scores of athletes ($N= 52$; 37 males and 15 females) and those of the general population ($N= 347$; 149 males and 198 females) are presented in Table 5.9 below.

Table 5.9 Descriptive statistics and reliability of the Personality scores.

		<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Male athletes	ImpSS	6.73	2.65	1-10	0-10	.76
	N-Anx	2.32	2.21	0-9	0-10	.73
	Agg-Host	5.68	2.57	1-10	0-10	.73
	Act	6.70	2.37	2-10	0-10	.75
	Sy	5.49	2.33	0-9	0-10	.67
Female athletes	ImpSS	5.67	2.66	1-10	0-10	.74
	N-Anx	4.67	2.82	1-9	0-10	.76
	Agg-Host	5.33	2.64	1-9	0-10	.72
	Act	5.27	3.04	1-10	0-10	.82
	Sy	3.67	2.35	0-8	0-10	.69
Male GP	ImpSS	4.68	2.46	0-10	0-10	.81
	N-Anx	3.41	2.83	0-10	0-10	.81
	Agg-Host	3.66	2.56	0-10	0-10	.69
	Act	4.50	2.75	0-10	0-10	.77
	Sy	5.10	2.96	0-9	0-10	.76
Female GP	ImpSS	4.49	2.32	0-10	0-10	.74
	N-Anx	4.82	3.15	0-10	0-10	.84
	Agg-Host	4.55	2.81	0-10	0-10	.64
	Act	4.20	2.84	0-10	0-10	.79
	Sy	4.70	2.61	0-10	0-10	.79

The relationship between population type and personality scores were investigated via a MANOVA, for which a statistically significant difference was revealed, $F(15, 1080) = 8.37$, $p = .000$, Wilk's $\Lambda = .74$, partial $\eta^2 = .10$, with a medium effect size. Statistically significant differences were found between population type and Impulsive Sensation-Seeking ($F(3, 395)$

= 9.68, $p = .000$, partial $\eta^2 = .07$) with a medium effect size, Neuroticism-Anxiety ($F(3, 395) = 11.37$, $p = .000$, partial $\eta^2 = .08$) with a medium effect size, Aggression-Hostility ($F(3, 395) = 7.24$, $p = .000$, partial $\eta^2 = .05$) with a small effect size, and Activity ($F(3, 395) = 8.82$, $p = .000$, partial $\eta^2 = .06$) with a medium effect size. There was no significant difference between population type and scores for Sociability.

Tukey's HSD post hoc tests revealed that for Impulsive Sensation-Seeking there were significant differences between male athletes and the male general population ($p = .000$), and male athletes and the female general population ($p = .000$), with male athletes scoring higher than all other sample types. For Neuroticism-Anxiety, significant differences were found between male and female athletes ($p = .05$), male athletes and the female general population ($p = .000$), and male and female general population ($p = .000$). Female general population scored the highest for Neuroticism-Anxiety, whilst male athletes scored the lowest. For Aggression-Hostility, significant differences were found between male athletes and the male general population ($p = .000$), and the male and female general population ($p = .01$). Male athletes scored the highest overall for Aggression-Hostility. Lastly, for Activity, statistically significant differences were found between male athletes and the male general population ($p = .000$), and the male and female general population ($p = .000$). Again, male athletes scored higher for Activity than the other sample types.

5.4.2.8 Alcohol Expectancy

The descriptive statistics of the alcohol expectancy scores of athletes ($N = 52$; 37 males and 15 females), and those of the general population ($N = 340$; 143 males and 197 females) are presented in Table 5.10 below.

Table 5.10 Descriptive statistics and reliability of the Alcohol Expectancy scores

Sample	CAEQ	<i>M</i>	<i>SD</i>	Range	Possible range	Cronbach's α
Male athlete	SAPA	63.89	16.25	19-83	19-95	.95
	TR	29.46	9.43	10-45	10-50	.90
	CIPD	39.19	9.54	13-56	13-65	.89
	Agg	10.41	5.88	4-20	4-20	.90

	SE	15.57	5.16	5-23	5-25	.82
Female athlete	SAPA	60.00	24.72	19-95	19-95	.98
	TR	29.80	14.05	10-50	10-50	.96
	CIPD	34.13	11.78	13-56	13-65	.89
	Agg	7.93	4.68	4-19	4-20	.89
	SE	13.80	7.21	5-25	5-25	.89
Male GP	SAPA	60.87	20.93	19-95	19-95	.96
	TR	28.87	10.23	10-50	10-50	.88
	CIPD	36.52	11.23	13-61	13-65	.89
	Agg	7.46	3.83	4-20	4-20	.86
	SE	13.20	5.09	5-25	5-25	.84
Female GP	SAPA	63.58	19.96	19-95	19-95	.97
	TR	28.54	9.61	10-50	10-50	.91
	CIPD	36.54	11.86	13-64	13-65	.93
	Agg	7.21	3.73	4-20	4-20	.88
	SE	14.50	5.55	5-25	5-25	.88

To test for differences between population types and alcohol expectancy scores a MANOVA was conducted. A statistically significant difference was found, $F(15, 1061) = 2.51$, $p = .001$, Wilk's $\Lambda = .91$, partial $\eta^2 = .03$, with a small effect size. However, the only statistically significant difference was found between population type and Aggression scores ($F(3, 388) = .63$, $p = .000$, partial $\eta^2 = .05$) with a small effect size. Tukey's HSD post hoc tests revealed that these significant differences were found between male athletes and the male general population ($p = .001$), and male athletes and the female general population ($p = .000$). Despite the lack of statistically significant differences between population types and alcohol expectancies, male athletes scored higher than other population types for all expectancies excluding Tension Reduction, for which female athletes scored the highest.

5.4.3 Investigating the Relationship between General Risk-Taking and Predictor Variables

The third objective of the study was to investigate whether there were relationships between previously identified predictors and levels of general risk-taking and, if so, which predictors had the largest association with levels of general risk-taking. Five multiple regression tests were performed to investigate the ability of previously identified continuous predictor variables to predict levels of each of the five DOSPERT risk-taking subscales. For each multiple regression, preliminary analyses were conducted to confirm no assumptions of normality, linearity, and homoscedasticity were violated.

For Social Risk, the overall model was statistically significant, and the independent variables explained 28.3% of variance ($F(22, 369) = 6.62, p = .000$) with an $R^2 = .283$. Masculinity ($\beta = .34, p = .000$), Lifestyle ($\beta = .20, p = .02$), Antisocial ($\beta = -.18, p = .003$), Aggression-Hostility ($\beta = -.12, p = .02$), Sociability ($\beta = .14, p = .02$), and Impulsive Sensation-Seeking ($\beta = .15, p = .01$) were all statistically significant. Results revealed that Masculinity had a higher Beta value than the other significant independent variables.

For Recreational Risk, the overall model was statistically significant, and the independent variables explained 43% of variance ($F(22, 369) = 12.65, p = .000$) with an R^2 of .430. Age ($\beta = -.22, p = .000$), Interpersonal ($\beta = -.14, p = .02$), Lifestyle ($\beta = .27, p = .000$), Activity ($\beta = .09, p = .05$), Aggression-Hostility ($\beta = .09, p = .05$), Sociability ($\beta = .34, p = .000$), and gender ($\beta = -.12, p = .02$) were all statistically significant. It was found that Sociability had a higher Beta value than the other significant independent variables.

For Financial Risk, the overall model was statistically significant, and the independent variables explained 27.3% of variance ($F(22, 369) = 6.30, p = .000$) with an R^2 of .273. Age ($\beta = -.12, p = .02$), Sociability ($\beta = .19, p = .001$), and gender ($\beta = -.16, p = .01$) were all found to be statistically significant, with Sociability having the highest Beta value of all the significant independent variables.

For Health and Safety Risk, the overall model was statistically significant, and the independent variables explained 47% of variance ($F(22, 369) = 14.90, p = .000$) with an R^2 of .470. Antisocial ($\beta = .22, p = .000$), Sociability ($\beta = .17, p = .001$), Social Assertiveness and Positive Affect ($\beta = .19, p = .01$), and gender ($\beta = -.16, p = .001$) were found to be statistically

significant, and Antisocial had a higher Beta value than the other significant independent variables.

For Ethical Risk, the overall model was statistically significant, and the independent variables explained 43% of variance ($F(22, 369) = 12.65, p = .000$) with an R^2 of .430. Sexual Sensation Seeking ($\beta = .16, p = .01$), Femininity ($\beta = -.24, p = .000$), Interpersonal ($\beta = .25, p = .000$), and Antisocial ($\beta = .11, p = .04$) were all found to be statistically significant. Of the statistically significant independent variables, Interpersonal had the highest Beta value.

5.5 Discussion

The present study sought to investigate whether athletes were more inclined to engage in general risk-taking than the general population, whether previous identified predictor characteristics of general risk-taking were present to a higher degree in the athlete population, and to explore the relationships between predictor characteristics and general risk-taking within these population types. The following sections will discuss the results of the study in more depth, and will provide critical evaluation, practical implications, and directions for future study.

5.5.1 Comparing the General Risk-Taking of Athletes and the General Population

The first objective of the study was to compare the general risk-taking of the athlete and general population, to examine whether the athlete population were more prone to engaging in risk-taking behaviours. Firstly, athlete and general population scores for the DOSPERT subscales were compared. The results showed that although athletes scored higher for Social Risk, there was no significant difference between the two samples. However, results also revealed that athletes scored significantly higher for Recreational, Financial, Health and Safety, and Ethical Risk, all with small effect sizes. These findings are consistent with research which has suggested that athletes engage more frequently in risky behaviour (e.g. Cross et al., 1998; Crossett, 1999; Gage, 2008; Huang, Jacobs & Derevensky, 2010; Kreager, 2007; Mastroleo et al., 2013; Messner & Sabo, 1994; O'Brien & Lyons, 2000; Shavers, Baghurst & Finkelstein, 2015; Yusko et al., 2008; Zuckerman, 1983).

Next, gender differences between the two samples were considered. Similarly, there were significant differences found for all of the DOSPERT subscales except Social Risk. It was found that male athletes scored higher than female athletes, and the male and female general population for all of the DOSPERT subscales. These findings were consistent with research which found that male athletes engaged in risky behaviour more often than their non-athlete peers (e.g. Cross et al., 1998; Crossett, 1999; Faurie, Pontier & Raymond, 2004; Gage, 2008; Huang et al., 2010; Hughes & Coakley, 1991; Kalichman et al., 2003; Kreager, 2007; Kuin et al., 2015; Marasescu, 2014; Mastroleo et al., 2013; Messner & Sabo, 1994; O'Brien & Lyons, 2000; Pappas, McKenry & Catlett, 2004; Shavers et al., 2015; Smith & Hattery, 2006; Stanger et al., 2013; Yusko et al., 2008; Zuckerman, 1983). Furthermore, the male general population scored second highest for all of the risk domains, meaning that males, both athletes and those in the general population, scored higher for all risk domains than females involved in the study. This is consistent with research which suggests that males are more likely to engage in risky behaviour than females (Schuster, Mermelstein & Wakschlag, 2013; Veselska, Geckova, Orosova, Gajdosova, van Dijk & Reijneveld, 2009) despite involvement in sport.

No significant differences, however, were found between female athletes and the female general population in any of the five risk domains. Despite the lack of significance, there were some differences in the scores; female athletes scored higher for Recreational and Financial Risk, whilst the female general population scored higher for Social, Health and Safety, and Ethical risk. Research can be drawn upon when attempting to explain these findings such as female athletes tending to analyse the risk and benefits of a behaviour (Lipowski et al., 2016), female involvement in sport acting as a protective factor against certain risky behaviours (Savage & Holcomb, 1999), and female athletes tending to increase femininity and reject typically masculine features, including risky behaviours, which can be gained through sport involvement (Knifsend & Graham, 2012; Malcom, 2003).

As there were multiple significant differences found between male and female athletes, but a lack of significance in the differences between female athletes and the female general population, this may suggest that athletic status alone is not enough to explain differences in risk-taking scores. Instead, it may be a combination of gender and athletic status which can contribute towards significant heightened risk-taking. Based on the results from the current study, it would appear that being a male can generally heighten risk-taking, but when those males are involved in sport, levels of risk-taking can increase further when compared to those in the general population and females whether athlete or non-athlete.

Kontos (2004) explained that increased male athlete risky behaviour involvement may be attributed to females more accurately assessing risk and males underreporting levels of perceived risk. It has been suggested that it can be more socially accepted for males to perceive lower risk within sports in line with masculine stereotypes within the sporting environment (Coakley, 2007). Additionally, it has been argued that males may underreport anxiety associated with risk due to social desirability and expectations from peers, and to maintain self-confidence in risky situations (Brustad, 1993). Another factor behind risk perception could be socialisation processes in sport, where parents and coaches can steer young female athletes away from aggression, contact, and risk-taking (Kontos, 2004). This may also be applied to the general population, with traditional ideas of masculinity and femininity.

These results, along with previous research, suggest that male populations paired with athletic status can influence tendency to engage in heightened risk-taking. However, based on these results alone, it is not clear exactly why male athletes can engage in higher risk-taking. The following sections discuss the results of the scores for the previously identified risk-taking predictor scales, to provide some explanation towards the above findings.

5.5.2 Comparing the Predictors of Athlete and General Population Risk-Taking

The second objective of the study was to compare the levels of previously identified predictors of general risk-taking in the athlete and general populations. This was also done whilst accounting for gender differences in the samples due to previously found significant differences between males and females regarding general risk-taking scores. The results from each of the predictors are discussed in their respective following sections.

5.5.2.1 Sexual predictors

For Sexual Sensation-Seeking, male athletes scored the highest, followed by the male general population, female athletes, and the female general population. The overall model was significant as a whole, but post hoc tests revealed significant differences were present between male athletes and the female general population, and between the male and female general population. Although not statistically significant male athletes scored higher than the male general population, and female athletes scored higher than the female general population. This

is consistent with research which found that sensation-seekers tend to have a propensity to engage in sport, particularly in contact sports, and athletes also tend to have more liberal attitudes towards risk (Zuckerman, 1983). It has also previously been found that male athletes engage in more sexual behaviours and with more partners than their male non-athlete counterparts (Faurie, Pontier & Raymond, 2004; Nattiv & Puffer, 1991). The results from the current study suggest that this may also be the case for female athletes when compared to the female general population. Although, Savage and Holcomb (1999) established that athletic involvement was often a protective factor against risky sexual behaviours for females, which would contradict the findings of the current study in which female athletes scored higher than female general population, albeit the differences were not significant between the scores of the two female populations.

Results from the chi square tests performed on the responses to the risky sexual behaviour questions revealed similar findings, with more male athletes engaging in all risky sexual behaviours than any of the other samples. Male athletes were overrepresented within the 'yes' response groups for four out of six of the questions; more male athletes had paid for sex, engaged in group sex, recorded themselves having sex, and had sent an explicit of someone else without their consent than expected. A potential explanation for these findings could be that six risky sexual behaviours involved sexual sensation-seeking to some extent, which was found to be more prominent in the male athlete population compared to the female athlete and general population samples of the current study. Support for this is also provided through the findings from previous research (e.g. Deckman & DeWall, 2011; Finkelstein et al., 2015; Shavers et al., 2015).

As male athletes scored highest for sexual sensation-seeking and had engaged in more risky sexual behaviours, with the male general population following, one potential explanation for this finding could be increased testosterone levels in males. Males with higher testosterone levels can have a higher number of sexual partners over time (Gray, McHale & Carre, 2017). Athletes with elevated testosterone may be more likely to engage in particular sports and can gain higher levels due to their training (Vajda & Reguli, 2018).

Additionally, considering the higher scores of male athletes over the male general population, power status may also contribute towards an explanation for the findings. Ronay and von Hippel (2010) argue that higher risk-taking behaviour levels could be due to a combination of power and exposure to testosterone. Heightened perceived power can increase

access to rewards and increase risk taking due to larger focus on rewards over the potential hazards of a behaviour. Individuals with increased perceived power are more likely to engage in activities such as unprotected sex due to a large focus on immediate sexual pleasure, and a lesser focus on the potential consequences related with that sexual behaviour (Anderson & Galinsky, 2006). Athletes, particularly those which are professional and/or elite, can be perceived as role models (Kovacs & Doczi, 2015, 2019) and can receive an abundance of attention from the general population and the media for their on- and off-field behaviour (Zadražnik & Topič, 2013). This may result in a heightened perceived sense on power (Finkelstein et al., 2015; Jackson & Davis, 2000). It could be argued that male athletes with heightened sense of power may lack attendance towards the risks involved in risky sexual behaviours, and this can therefore lead to higher engagement and incidences. Additionally, the findings could be attributed in part to athletes having easier access to more sexual partners. Athletes involved in higher masculinity and contact sports can have easier access to casual sexual encounters, and this may result in higher incidents of risky sexual behaviour (Vajda & Reguli, 2018).

5.5.2.2 Power

Results from the power scale revealed that there were no significant differences between the athlete and general populations for either Power over the Opposite Sex or Power over Friends. There were, however, significant differences found between the male and female general population for both variables, with females scoring higher than males, as well as highest overall. It has been previously argued that male athletes are often seen as popular and well-respected figures resulting in higher social status and subsequent power (Holland & Andre, 1994; Shavers et al., 2015; Smith & Hattery, 2006), with non-athletic friends of athletes also benefitting from higher social status and power due to power of association (Eckert, 1989). The findings from the current study seem to contradict research which has stated that heightened status of male athletes can lead to heightened perceived power over women and those around them (Finkelstein et al., 2015; Shavers et al., 2015).

Although there was a lack of significant differences between the athlete and general populations, the results show that male athletes scored higher for both variables than the male general population, and female athletes scored lower than the female general population for both variables. Based on these results it may be possible that sport involvement enhances

perceived sense of power in male athletes when compared to the male general population, whilst sport involvement could act as a protective factor against elevated sense of power in female athletes when compared to the female general population. Females involved in sport have been found to analyse the cost and benefits of behaviour (Lipowski et al., 2016), with sports contributing as a protective factor against risky behaviours (Savage & Holcomb, 1999). In addition, it has been suggested that female athletes have increased maturity (Lipowska et al., 2016; Malcom, 2003) than males, both athlete and non-athlete, and female non-athletes (Lipowska et al., 2016). This may provide some explanation as to why female athletes scored lower for power when compared with the other sample types.

However, as the sample sizes of the athlete population were relatively low, this may contribute to the lack of significant findings in the current research and should be further investigated with larger sample numbers to test the potential effects of sport involvement on perceived power, whilst accounting for gender differences. It may also be the case that heightened power is more apparent within more elite athlete populations and so future studies which involve higher level athletes may identify more significant differences between the athlete and general population in perceived power levels. Furthermore, the questions given to the samples within the current study focused on power over the opposite sex and power over friends. It may be possible that perceived power is more prevalent over others generally or individuals with no relation to themselves. Further study could include questions regarding power over others generally rather than specifying particular groups of people.

5.5.2.3 Gender roles

The results from the chi square test revealed that more male athletes were classed as masculine than expected, fewer male athletes were classed as feminine than expected, more male athletes were classed as androgynous than expected, and more of the female general population were classed as feminine than expected. The findings are consistent with previous research which suggests that masculinity is often celebrated in sporting culture, and that masculine traits such as strength, power, and determination are respected (Connell & Messerschmidt, 2005; Crosset, 1999; Eder, Evans, and Parker, 1997; Kreager, 2007; Pappas et al., 2004). It has been reported that involvement in sport can influence masculinity and reinforce gender differences which reward male domination and aggression (Coakley, 2007; Gage, 2008). Success with violence and masculine identities which are portrayed within sports

can be reinforced and extended beyond the sporting context to off-field contexts (Crosset, 1999; Kreager, 2007; Pappas, McKenry & Catlett, 2004), and can be reinforced as a means of maintaining peer status and avoiding ridicule from teammates (Akers, 1998; Warr, 2002). Although these group masculinities can also be present in the male general population, it may be the increased perceived status, power, and sense of invincibility (Shavers et al., 2015), male dominance and sense of entitlement (Nelson, 2018), and celebrity status and access to privileges (Pappas, 2012) which may contribute to male athletes being a distinct group with regards to the effects of masculinity.

Although, based on previous literature mentioned above, it was expected that a large majority of the athlete population would be categorised as Masculine, the majority of athletes were categorised as Androgynous. The higher Androgynous categorisations may be partly due to individual ability to answer honestly without ridicule from others. It has been previously reported that male student athletes avoid being perceived as weak or going against the social dynamics of their group and so may act in particular ways to fit into the masculine group to uphold their social status within the group (Goffman, 1967; Kimmel, 2008; Kreager, 2007, Nelson, 2018). With the environment being removed from this situation, it may have been the case that more of the athlete sample were willing to be open and honest regarding their personal attributes and traits, than they would in a real-life sporting context.

When the masculinity and femininity scales were treated as continuous scales, a number of significant differences were found between the samples. For masculinity, there was found to be significant differences between male athletes and the male general population, between male athlete and female general population, between female athletes and the female general population, and between the male and female general population. The mean scores revealed that male athletes scored the highest of all the samples for masculinity, followed by female athletes, the male general population, and the female general population. These findings are consistent with previous literature which states that male groups, such as sports teams, can adopt masculine behaviours such as competitiveness and aggressive behaviour, whilst rejecting characteristics which are commonly seen to be feminine (Connell & Messerschmidt, 2005). Additionally, Eder, Evans, and Parker (1997) found that male footballers and wrestlers formed masculine identities through behaviours such as intimidation, whilst those in a lower social ranking often displayed more submissive behaviours. Male athlete performance in sport is an indicator of masculinity and therefore elite professional male athletes are subject to a culture of hegemonic masculinity (Connell & Messerschmidt, 2005). Research has also suggested that

being in the sporting environment can increase masculinity in female athletes (Knifsend & Graham, 2012; Malcom, 2003) consistent with the present results with female athletes scoring higher than the male general population.

For femininity, there was only one significant difference identified between the samples and that was between male athletes and the female general population. Looking at the mean scores, the female general population scored the highest for femininity followed by female athletes, the male general population, and male athletes. These results are not surprising as male athletes, particularly those in team sports, can adopt masculine behaviours such as aggression and competitiveness, whilst rejecting characteristic which are typically perceived as feminine (Connell & Messerschmidt, 2005). Furthermore, it has previously been found that male footballers and wrestlers can adopt masculine identities whilst those displaying more submissive, often feminine, identities are lower in the social rankings (Eder, Evans & Parker, 1997). As mentioned earlier, female athletes can have increased masculinity due to being involved in the masculine sporting environment. However, it has been argued that female athletes can also actively retain or increase their feminine characteristics to avoid ridicule (Knifsend & Graham, 2012; Malcom, 2003).

5.5.2.4 Psychopathy

It was found that male athletes scored the highest for all of the psychopathy subscales: interpersonal, affective, lifestyle, and antisocial. There were a number of significant differences found when comparing the psychopathy subscale scores of the athlete and general populations. A particularly notable result was that male athletes scored significantly higher than all other sample types for affective and lifestyle psychopathy, in addition to scoring significantly higher for interpersonal and antisocial psychopathy than the female general population. These findings support previous research which found that male athletes scored higher than females and non-athletes on Psychopathy (Ueno, Shimotsukasa, Suyama & Oshio, 2017; Vaughan, Madigan, Carter & Nicholls, 2019).

Those who score highly for psychopathy tend to be emotionally insensitive, manipulative, superficially charming, reckless, and fearless, and be high functioning and socially able across a variety of settings (Steinert, Lishner, Vitacco & Hong, 2017). However, it has been argued that some psychopathic characteristics can mask maladaptive factors of psychopathy and can even promote successful behaviours (Gao & Raine, 2010; Lilienfeld,

Watts & Smith, 2015), and this is referred to as successful psychopathy (Steinert, Lishner, Vitacco & Hong, 2017). It is possible that psychopathy characteristics may actually aid athletic performance and success within sports, particularly those playing at a higher level.

5.5.2.5 Personality Differences

There were no significant differences identified between any of the population types for Sociability. Although, when looking at the mean scores, male athletes scored highest followed by male general population, female general population, and female athletes. However, a number of significant differences in personality scores were identified. Male athletes scored significantly higher than the male and female general population for Impulsive Sensation-Seeking. This finding is consistent with research which has stated that sensation-seekers tend to participate in sports (Cross et al, 1998; Mastroleo et al., 2013; Yusko et al., 2008; Zuckerman, 1983).

Additionally, for Neuroticism-Anxiety male athletes scored the lowest out of all the sample types, whilst the female general population scored the highest, with female athletes following. Significant differences were found between male and female athletes, male athletes and the female general population, and male and female general population. This trait involves lack of self-confidence, fearfulness, indecision, emotional upset, worry, and sensitivity to criticism (Aluja et al., 2006). Male athletes scoring lower for this trait provide support for previous literature which reports that athlete scored higher than non-athletes for self-esteem (Bjelica & Jovanovic, 2014; Eime et al., 2013; Laborde, Guillen & Mosley, 2016), resilience (Guillen & Laborde, 2014; Laborde, Guillen & Mosley, 2016), positivity (Laborde, Guillen & Mosley, 2016), perseverance (Guillen & Laborde, 2014; Laborde, Guillen & Mosley, 2016), and self-efficacy (Eime et al., 2013; Inoue et al., 2015; Laborde et al., 2015; Laborde, Guillen & Mosley, 2016).

Furthermore, the results revealed that male athletes scored the highest for Aggression-Hostility, with a significant difference found between male athletes and the male general population. A significant difference was also revealed between the male and female general population, with the males scoring higher than females. These results are consistent with previous research which has found that aggression is a trait which is often celebrated within, especially male, sporting environments and can then extent beyond on-field performance

(Connell, 1995; Connell & Messerschmidt, 2005; Crosset, 1999; Kreager, 2007; Messner, 1992; Pappas, McKenry & Catlett, 2004).

Finally, it was found that the male athlete population scored the highest for Activity, with female athletes following second. Male athletes were found to have scored significantly higher than the male and female general population for the Activity trait. Before members of the general population completed the questionnaire, they were asked about their involvement in sports. All of the sample were either involved in sport recreationally, occasionally, or not at all. Based on this, it would make sense that male athletes scored significantly higher on the Activity trait than the male general population.

5.5.2.6 Alcohol Expectancy

The results revealed that male athletes scored higher than the other population types for four of the alcohol expectancy scales: Social Assertiveness and Positive Affect, Cognitive Impairment and Physical Discomfort, Aggression, and Sexual Enhancement. Tension Reduction, though, was highest in the female athlete population. However, there were only significant differences found between male athlete Aggression and that of the male and female general population, with male athletes scoring significantly higher. It has been suggested that aggression can be seen as socially deviant and therefore rejected by the general population but may be accepted by athletes who experience on-field success with aggression (Kreager, 2007). It has also been suggested that male athletes have a higher tendency to engage in more violent behaviours (Marasescu, 2014).

It could be argued that the already masculine and competitive athletic environment and aggression originating from success from on-field aggression has the potential to be transferred and emulated outside of sports. Alcohol consumption may then heighten this effect, leading to male athletes becoming more aggressive when compared to the general population. Moreover, although not significant, female athletes scored the second highest for Aggression which provides further support that the competitive sporting environment which athletes are subject to may increase Aggression, particularly considering that athletes can have elevated testosterone levels (Crewther & Cook, 2018; Vajda & Reguli, 2018). In addition, the drinking culture which can be present within some sporting environments (Ford, 2007; Kwan et al., 2014; Veliz, Boyd & McCabe, 2015) may also contribute towards these findings of higher Aggression alcohol expectancies in the athlete samples.

5.5.3 Exploring the Relationship between Predictor Variables and Risk-Taking

The third objective was to explore the relationships between the specified predictor characteristics and general risk-taking within the athlete and general population. This was conducted to explore if whether there was an association between the previously identified predictor characteristics, and whether the model was significant in explaining the influence of general risk-taking. The results from testing the predictors against each of the risk-taking domains using multiple regression tests are discussed in their respective following sections.

5.5.3.1 Social Risk

The results revealed that the model for Social Risk was statistically significant, with the independent variables explaining 23.3% of the variance. Masculinity, Lifestyle Psychopathy, Sociability, and Impulsive Sensation-Seeking were all found to be significantly and positively associated with Social Risk, whilst Antisocial Psychopathy and Aggression-Hostility were both found to be significantly and negatively associated with Social Risk.

Masculinity was found to be the largest predictor of Social Risk in the sample. Research has found masculinity to be positively associated with risky behaviours including substance abuse (Blazina & Watkins, 1996), violent and aggressive behaviours, and risky driving and sexual behaviours (Mahalik, Lagan & Morrison, 2006). Social factors such as group norms can have an influence on behaviours which are viewed as acceptable in social situations and which behaviours are unacceptable. Spence, Helmreich and Stapp (1974) identified characteristics such as being kind, understanding, emotional, and aware of others' feelings as feminine. Furthermore, the Social Risk DOSPERT subscale used in the current study includes items such as *“Admitting that your tastes are different from those of a friend”* and *“speaking your mind about an unpopular issue in a meeting at work”*, items which could be argued fit more with traditional masculinity. Considering male athletes scored highest for masculinity, scoring significantly higher than the male general population, and female athletes scored second highest, scoring significantly more than the female general population, this suggests that the often masculine athletic environment can influence Social Risk to a higher degree than in the general population.

Lifestyle Psychopathy was the second largest contributor to Social Risk. This trait involves traits of impulsivity, the seeking of stimulation, irresponsibility, and often substance abuse. These erratic lifestyle traits can be co-occurrent with an inability focus on and process situational cues and an absence of understanding and/or consideration for the potential risks of a behaviour. This can result in heightened propensity to engaging in risky behaviours (Hosker-Field, Molnar & Book, 2016). The Triarchic Model of psychopathy (Patrick, Fowles & Krueger, 2009) consists of three factors. Firstly, Boldness refers to social dominance, and tolerance of stressors, dangers and uncertain situations. Meanness refers to callousness, being exploitive and having a lack of attachment to others. Finally, Disinhibition refers to low tolerance of frustration and a lack of impulse control. The model suggests that boldness may be a result of differences in the amygdala, and disinhibition associated with the pre-frontal cortex. However, meanness can be influenced by genetics or the environment which can harm attachments with others. Furthermore, it has been found that erratic lifestyle traits have been positively associated with substance abuse (Walsh, Allen & Kosson, 2007). As male athletes in the current study scored significantly higher for Lifestyle Psychopathy, this may suggest that the sporting environment could have an influence on Psychopathy levels, potentially leading to increased propensity to engage in socially risky behaviours.

Sociability is personified by traits including extraversion and friendliness (Goodwin, Piazza & Rozin, 2014; Leach, Ellemers & Barreto, 2007). Extraverts are more sociable, impulsive, and tend to engage in more risky behaviours (Eysenck & Eysenck, 1985) which may include risk-taking in social situations. Although there was no significant difference found between population type for Sociability, male athletes scored the highest within the sample. As athletes tend to spend a lot of time with teammates this may result in increased extraversion, leading to subsequent social risk-taking when considering the athletic environment. Contrastingly, female athletes scored the lowest for Sociability and so other factors must be considered over just athletic involvement. However, masculinity was previously identified as the strongest predictor for Social Risk which suggests that a combination of heightened Masculinity and Sociability may slightly, although not significantly, increase Social Risk in male athletes.

Impulsive Sensation-Seeking was also positively associated with Social Risk, consistent with research which has found that impulsivity has an influence on risk-taking behaviour (Sher & Trull, 1994; Zietsch, Verweij, Bailey, Wright, & Martin, 2010). It has previously been found that individuals who scored higher sensation-seeking also scored higher

for normlessness, having less consideration for socially unacceptable behaviour (Ulleberg & Rundmo, 2003). Sensation-seekers tend to participate in sport (Cross, Basten, Hendrick, Kristofic & Schaffer, 1998; Mastroleo, Scaglione, Mallett & Turrisi, 2013; Yusko, Buckman, White & Pandina, 2008; Zuckerman, 1983) and some of the riskiest forms of behaviours can be attributed to impulsivity traits developed during early years and adolescence (Romer, 2010). Earlier in the chapter, it was found that male athletes scored significantly more for Impulsive Sensation-Seeking. Many athletes tend to begin their athletic career at a young age and often spend a considerable amount of time within an athletic environment with teammates. Considering that the majority of athletes are highly competitive individuals, they may seek out excitement and stimuli at an elevated level which matches their personal characteristics, and this may be fulfilled in the social team environment, resulting in elevated social risk-taking.

Antisocial Psychopathy was found to be negatively associated with Social Risk. Previous work has found that individuals with higher psychopathy levels tend to engage in elevated risk-taking (Jones & Paulhus, 2011). However, the current results suggest that the opposite effect is present between Antisocial Psychopathy and Social Risk. The results also contradict those reported in Hosker-Field, Molnar and Book (2016) in which a positive association was found. Antisocial Psychopathy refers to traits such as aggression and criminal behaviour, whilst Social Risk refers to disagreement with authority, peers, and social norms, hence the association was not as expected. Similarly, Aggression-Hostility was found to be negatively associated with Social Risk, which was not as expected; Aggression-Hostility would be expected to be positively associated with disagreements in social situations and opposition of social norms.

5.5.3.2 Recreational Risk

The model for Recreational Risk was statistically significant, with the independent variables explaining 43% of the variance. Sociability, Lifestyle Psychopathy, Activity, and Aggression-Hostility were all found to be significantly and positively associated with Recreational Risk, whilst Age, Interpersonal Psychopathy, and Gender were found to be significantly and negatively associated with Recreational Risk. Sociability was found to be the largest predictor of Recreational Risk in the sample.

Sociability was found to be the largest predictor of Recreational Risk. Again, Sociability involves extraversion (Goodwin, Piazza & Rozin, 2014; Leach, Ellemers &

Barreto, 2007), and extraverts are more impulsive and tend to engage in more risky behaviours (Eysenck & Eysenck, 1985), which may include recreational situations. Male athletes scored significantly higher for Recreational Risk, and also scored the highest in the sample for Sociability. As athletes spend a lot of time with teammates and they have been found to engage in significantly more recreational risk, it could be that peer influence may contribute towards recreational risk-taking. Warr (2002) explained that team sports can influence individuals to conform due to ridicule from peers and the pressure of the rules of group loyalty. Furthermore, athletes can often engage in risky behaviours to save face in situations which threaten their masculinity and social status (Goffman, 1967; Kreager, 2007). Activity was another personality trait which was significantly and positively associated with Recreational Risk. This was an expected finding as heightened Activity would naturally lend itself to more involvement in recreationally risky behaviours. Moreover, Aggression-Hostility was positively associated with Recreational Risk. Aggression is a trait which is often celebrated within, especially male, sporting environments which can then extend beyond on-field performance (Connell, 1995; Connell & Messerschmidt, 2005; Crosset, 1999; Kreager, 2007; Messner, 1992; Pappas, McKenry & Catlett, 2004). As male athletes scored significantly higher for Aggression-Hostility, this may contribute in part to their significantly higher Recreational Risk scores. Both Activity and Aggression-Hostility, however, only had very small associations with Recreational Risk within this model.

Lifestyle Psychopathy was also positively associated with Recreational Risk. These results are consistent with the results of Hosker-Field, Molnar and Book (2016) who also found a positive association between Lifestyle Psychopathy and Recreational Risk. Lifestyle Psychopathy refers to erratic lifestyle choices such as impulsivity and sensation-seeking. Erratic lifestyle can coincide with an absence of understanding and/or consideration for the possible consequences of a behaviour, which can result in heightened propensity to engaging in risky behaviours (Hosker-Field, Molnar & Book, 2016). This suggests that individuals who have more unpredictable lifestyles and score higher for Lifestyle Psychopathy may be more incline to engage in recreationally risky behaviours such as extreme sports. If those involved in sports tend to be sensation-seekers, then this could explain heightened athlete involvement in recreational risk.

Conversely, Interpersonal Psychopathy was found to be negatively associated with Recreational Risk. Interpersonal Psychopathy refers to traits such as being manipulative, callous, narcissistic, etc. Due to the nature of Interpersonal Psychopathy, it may be that

individuals who score higher for this psychopathy trait may be more concerned with other areas of risk-taking rather than recreational risk-taking. For example, previous work has found Interpersonal Psychopathy to be positively associated with greater ethical risk-taking (Hosker-Field, Molnar & Book, 2016).

Age was found to be negatively associated with Recreational Risk. The findings are consistent with previous research which suggest that risk-taking is especially common in adolescents and young adults and often decreases with age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds et al., 2019). Gender was also found to be negatively associated with Recreational Risk. In this case gender was coded (1 = male, 2 = female), meaning being male was more highly associated with recreational risk-taking. This is consistent with research which has found that males are more likely to engage in risky behaviours than females (e.g. Schuster, Mermelstein & Wakschlag, 2013; Veselska, Geckova, Orosova, Gajdosova, van Dijk & Reijneveld, 2009) and females are generally more risk averse (Meier-Pesti & Penz, 2008).

5.5.3.3 Financial Risk

The model for Financial Risk was statistically significant, with the independent variables explaining 27.3% of the variance. Sociability was the largest predictor and was significantly and positively associated with Financial Risk. Age and Gender were significantly and negatively associated with Financial Risk.

For Financial Risk, Sociability was, again, the largest predictor. As financially risky behaviours include gambling behaviours, it is possible that those who engage in gambling behaviours with friends tend to make more financial risks. Previous research has found that individuals who had a more positive attitude towards gambling behaviours were more likely to engage in those behaviours (Cross, Basten, Hendrick & Schaffer, 1998). It is possible that if an individual is more sociable and has friends who have more positive attitudes towards financially risky behaviours, particularly in social situations, then the individual is more likely to engage in financially risky behaviours themselves. For example, for athletes who spend a lot of time with teammates, it has been reported that male football and basketball players who engaged in gambling had considerably different attitudes towards risk-taking behaviour than their peers who were not involved in gambling (Cross, Basten, Hendrick & Schaffer, 1998).

Similar to the results found for Recreational Risk, age was found to be negatively associated with Financial Risk. This is consistent with research has found that risk-taking is more common in adolescents and young adults, usually decreasing with increased age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds et al., 2019). Furthermore, gender was negatively associated with Financial Risk, in this case meaning that being a male was more highly associated with engaging in financially risky behaviours.

5.5.3.4 Health and Safety Risk

The model for Health and Safety Risk was statistically significant, with the independent variables explaining 47% of the variance. Antisocial Psychopathy, Sociability, and Social Assertiveness and Positive Affect were all significantly and positively associated with Health and Safety Risk, with Antisocial Psychopathy being the largest predictor. Gender was significantly and negatively associated with Health and Safety Risk.

Antisocial Psychopathy was the largest predictor of Health and Safety Risk. Antisocial Psychopathy refers to physical aggression and criminal involvement, whilst Health and Safety Risk involves behaviours which put individuals own safety at risk. This may involve risky and criminal behaviours such as speeding, involvement in drugs, etc. It has previously been suggested that there are comorbidities between psychopathy, antisocial personality disorder, and alcohol use disorders, which is a behaviour which would fall under Health and Safety Risk. There is evidence to suggest that these disorders are associated with increased engagement in risky and exciting activities (Grau & Ortet, 1999; Lang & Belenko, 2001; Quay, 1965; Zuckerman, 1994).

Sociability was also positively associated with Health and Safety Risk, along with Social Assertiveness and Positive Affect alcohol expectancy. Those who score higher for Sociability may be more inclined to be involved in social situations, including those involving alcohol use with peers, and may use alcohol as a means of improving social interactions with others. Motivational models of alcohol use state that individuals drink to attain a desired outcome (Cooper, 1994; Kuntsche, Knibbe, Gmel & Engels, 2005). Individuals with the expectancy that social improvements will occur with alcohol use may then become more extraverted and engage in more risky behaviours which affect their health and safety, such as risky sexual behaviour. Alcohol tends to lower inhibitions, and previous work has found that

greater alcohol use is associated lower sexual inhibitions and other risky sexual behaviours such as unprotected sex (e.g. Kantor, 1993; Koss & Gaines, 1993; Peterson, Janssen & Heiman, 2009; Turchik, Garske, Probst & Irvin, 2010). Furthermore, gender was negatively associated with Health and Safety Risk, in this case meaning that being a male was more highly associated with engaging in health and safety risk behaviours, again, supporting previous work that found males to be more likely to engage in risky behaviours than females (e.g. Schuster, Mermelstein & Wakschlag, 2013; Veselska, Geckova, Orosova, Gajdosova, van Dijk & Reijneveld, 2009).

5.5.3.5 Ethical Risk

The model for Ethical Risk was statistically significant, with the independent variables explaining 43% of the variance. Sexual Sensation-Seeking, Interpersonal Psychopathy, and Antisocial Psychopathy were all significantly and positively associated with Ethical Risk, with Interpersonal Psychopathy being the largest predictor. Femininity was significantly and negatively associated with Ethical Risk.

Interpersonal Psychopathy was found to be the largest predictor of Ethical Risk, with Antisocial Psychopathy also being positively associated. This is consistent with work which has found similar positive associations between psychopathy traits and ethical risk-taking (Hosker-Field, Molnar & Book, 2016). Interpersonal Psychopathy refers to traits such as being deceitful and manipulative, and so it is unsurprising that this psychopathy trait was positively associated with Ethical Risk, which includes activities where lying and manipulation are prominent. Furthermore, Antisocial Psychopathy includes aggression, involvement in crime and other antisocial behaviour, so it is also unsurprising that this psychopathy trait was found to be positively associated with Ethical Risk, as this risk behaviour includes unlawful behaviours as well as those which are morally deviant.

Sexual Sensation-Seeking was also positively associated with Ethical Risk. Individuals with risk personalities tend to take social and legal risks and have problems with delaying instant pleasure (Worthy, Jonkman & Blinn-Pike, 2010; Zuckerman & Kuhlman, 2000). They tend to seek out exciting situations and experiences which are found to be arousing, more so than individuals who do not exhibit sensation-seeking characteristics (Stanford, Mathias, Dougherty, Lake & Patton, 2009). This arousal may be found in risky sexual situations, and individuals with risk-taking personalities tend to report lower levels of perceived risks associated with an activity (Boyer, 2006). When a situation includes both positive and negative

consequences, just as sexual encounters, individuals with risk-taking personalities are more likely to diminish their perceived level of risk involved (Alexopoulos & Cho, 2019). If Sexual Sensation-Seeking is positively associated with Ethical Risk, then it is possible that ethical issues relating to sex could be minimised by individuals scoring higher for Sexual Sensation-Seeking, and this could help to explain where lines surrounding consent in sexual encounters are blurred.

Femininity was found to be negatively associated with Ethical Risk. Risk-taking is typical recognised as a masculine characteristic (Meier-Pesti & Penz, 2008), and males, particularly those in groups such as sports teams, can adopt masculine characteristics whilst rejecting typically feminine characteristics (Connell & Messerschmidt, 2005). It has been reported that females, despite athletic status, will retain feminine characteristics (Knifsend & Graham, 2012; Malcom, 2003). As risk-taking is typically seen as a masculine trait, it is not surprising that higher femininity levels would result in reduced Ethical Risk.

5.5.4 Implications of the Research

The results suggest that male athletes are more likely to engage in general risk-taking than female athletes and the general population. Although risk-taking tendencies do not necessarily mean that individuals will engage in antisocial behaviour, previous research suggests that athlete problem behaviours have been increasing (e.g. Anderson, Albrecht, McKeag, Hough & McGrew, 1991; Pappas, McKenry, & Catlett, 2004) which have a significant impact not only on other athletes but also society in general (Ueno, Shimotsukasa, Suyama & Oshio, 2017). Therefore, the development of focused educational programmes are of great importance.

The outcomes of the current study revealed that sexual behaviour, masculinity, sensation-seeking, psychopathy, and aggression are all factors were present in higher levels in male athletes. Personality traits, psychopathy traits, masculinity, alcohol expectancy, and sexual sensation-seeking were also all associated with the risk-taking scale to some degree. Therefore, these variables should be considered when developing educational interventions for the male athlete population. These should focus on the development of self-management skills for athletes. For example, it was found that athletes scored significantly higher for aggression as an alcohol expectancy, as well as significantly higher for masculinity, and also higher for

Aggression-Hostility (although not significant). While it is not clear how these variables are associated with each other, the heightened scores for similar outcomes give an indication that aggression should be targeted when developing intervention for male athletes. This is particularly apparent when the results from Study One are taken into consideration in which sexual, addictive, and violent offending and risky behaviours were identified as the problem behaviours within a male athlete sample.

5.5.5 Limitations and Directions for Future Research

The study was exploratory in nature, exploring the general risk-taking tendencies of athletes and predictor variables of risk-taking, when compared to the general population. The current study has contributed to research through the investigation of multiple predictor characteristics of athlete general risk-taking. However, the study does incur some limitations and, due to the exploratory nature of the work, future research is needed.

This study included a relatively large general population sample, but a comparatively small athlete sample. There were notable difficulties in gaining access to athletes due to the closed nature of sporting organisations with regards to the nature and aims of the research. Presumably, this has been a barrier to previous research in the field, resulting in a previous prominent focus on adolescent and collegiate athletes, unless focusing on health and sport performance issues. It would be beneficial for future research to accumulate data from a much larger athlete sample to improve the reliability and ecological validity of the results. This could be done through the agreement of sporting organisations to take steps to assisting in research of this type by granting more access to their players and increasing communication and transparency.

A second limitation of the study was the gender split within the sample. Although this was advantageous in identifying and confirming previously identified findings, previous literature has consistently reported that male athletes, as well as males in the general population, are more inclined to taking risks than females, both athlete and non-athlete. As a result, a fruitful direction for future research would be to recruit a large male-only athlete sample.

Furthermore, given the cross-sectional nature of the study, it is not possible to infer causality within the data, although the research findings have identified characteristics which

should be studied further and in more depth. Future research should examine more closely the longitudinal relationships and interactions between personal characteristics associated with general risk-taking in athletes. Through deeper understanding of general risk-taking tendencies in the population, it may be possible to create more effective interventions to reduce and prevent problem behaviours which elite athletes can engage in e.g. offending behaviours previously explored in Study One. Additionally, the scales which were used within the study should be considered. Although efforts were made to select scales which were validated cross-culturally and across populations, future research should further validate the scales within athlete samples.

Finally, it would be advantageous to explore in more detail the effects of involvement in sport on risk-taking behaviour. This could be achieved through in-depth qualitative research to collect detailed data which may not otherwise be possible to accumulate through quantitative methods. For example, semi-structured qualitative interviews could be conducted on a sample of athletes from varying sports. This may reveal issues within and between sports which cannot be identified through quantitative questionnaires, and which have not been studied in previous literature.

5.5.5 Conclusion

To conclude, the current study suggests that male athletes are more inclined to engage in general risk-taking than female athletes and the general population. The male athlete sample were found to scored significantly higher for the majority of previously identified predictors of risk-taking behaviour: Sexual Sensation-Seeking, Masculinity, Psychopathy, personality traits such as Impulsive Sensation-Seeking and Aggression-Hostility, and Aggression alcohol expectancy. Nevertheless, the results should be approached with caution due to the sample size and cross-sectional nature of the study. In the future, efforts should be made to develop an understanding of the longitudinal relationships between personal characteristics, environmental factors, and risk-taking behaviours in the athlete population. The outcomes of the current study inspired the following empirical chapter, Study Three of the current thesis (see Chapter Six).

CHAPTER SIX

Study Three: Personal Experiences and Attitudes of Athletes regarding Athletic Involvement and Risky Behaviour

6.1 Introduction

It has been heavily documented that athletic participation can have substantial beneficial effects on high school and collegiate athletes. For example, it has been found that athletic involvement can result in increased academic achievement (e.g. Marsh & Kleitman, 2003; Miller, Melnick, Barnes, Farrell & Sabo, 2005; Schafer & Armer, 1968; Veliz & Shakib, 2014; Yeung, 2013), enjoyment (e.g. Wendling, Flaherty, Sagas, & Kaplanidou, 2018), improved self-esteem (Phillips & Schafer, 1971), heightened peer status (e.g. Phillips & Schafer, 1971; Rehberg, 1969; Spady, 1970), better physical and mental health (e.g. Agans, Johnson, & Lerner, 2017; Eime, Young, Harvey, Charity & Payne, 2013; Janssen & LeBlanc, 2010; Simpkins, 2015), and improved social functioning (e.g. Agans, Johnson, & Lerner, 2017; Simpkins, 2015). Some previous research also suggests that criminal and delinquent behaviours (Miller, Melnick, Barnes, Sabo & Farrell, 2007; Spruit, van Vugt, van der Put, van der Stowe & Stams, 2016; Veliz & Shakib, 2012) and illicit drug use (Buckman, Yusko, Farris, White & Pandina, 2011; Kwan, Bobko, Faulkner, Donnelly & Cairney, 2014) are less prevalent amongst student athletes when compared to their non-athlete counterparts. This has been partly attributed to protective factors provided by strong bonds with parents and other pro-social individuals, such as coaches (Ford, Pomykacz, Veliz, McCabe & Boyd, 2017; Hirschi, 1969).

Contrastingly, some research suggests that athletic involvement can, instead, serve as a risk factor for risky or antisocial behaviours, such as heavy alcohol use and binge drinking (e.g. Ford, 2007; Kwan et al., 2014; Veliz, Boyd & McCabe, 2015). Notably, this has been found to differ depending on various factors. For example, heightened rates of alcohol use have been found in those who play contact sports when compared to those in non-contact sports (Veliz, Boyd & McCabe, 2015). Elevated alcohol use has also been found in those who are have leadership status within sports teams when compared to other members within the team, also suffering more adverse effects from their alcohol use (Leichliter, Meilman, Presley & Cashin,

1998). Additionally, Nucci and Kim (2005) found that the competitive nature of sports can result in immoral and aggressive behaviours, impacting the wellbeing of young athletes.

The coach-athlete relationship can play a vital role in the development of an athlete both in their performance and as a person (Jowett & Cockerill, 2003). Olusoga, Butt, Hays and Maynard (2009) report that sports coaching can be challenging, and that the coach-athlete relationship can be mutually stressful. However, coaches have the capability to be encouraging and inspirational for athletes, and can lead them to great success (Olusoga, Maynard, Hays & Butt, 2011). Coaches can take on the role of mentors and act as role models (Beam, Chen & Greenberger, 2002), and can influence levels of antisocial behaviour in athletes (Nucci & Kim, 2005). Supportive relationships between athletes and coaches have been found to be associated with increased prosocial and less antisocial behaviour in adolescent athletes (Rutten, Stams, Biesta, Schuengel, Dirks & Hoeksma, 2007). One way that coaches can influence prosocial behaviours is through teaching fair play values. Fair play is the term used when referring to behavioural guidelines, rules, and values inherent of sport, including respect for opposition, equality, and support (Arnold, 1994, 2001). It has been found that team values including fair play attitudes were associated with increased on-field prosocial behaviour (Stephens & Bredemeier, 1996) and fewer antisocial behaviours (Rutten, Deković, Stams, Schuengel, Hoeksma, & Biesta, 2008). Conversely, negative attitudes related to fair play values were associated with increased aggression (Junge, Dvorak, Rösch, Graf-Baumann, Chomiak, & Peterson, 2000).

The social nature of sport can provide vast opportunities for both prosocial and antisocial behaviours to manifest (Kavussanu, 2008). Young athletes exhibit high rates of both prosocial and antisocial behaviours (Shields, Bredemeier, LaVoi & Power, 2005) and so both types of behaviour should be investigated to understand the social impact of sport (Kavussanu & Boardly, 2009). It has been frequently suggested that social aspects can serve as both protective and risk factors of risky behaviour in adolescent athletes (e.g. Barber, Stone & Eccles, 2010; Fredricks & Eccles, 2005; Haynie, 2002). For example, Vest and Simpkins (2013) found that, consistent with the social learning theory, adolescent athletes were more likely to use alcohol if their teammates engaged in heavy alcohol use, but that having teammates who engaged in low alcohol use served as a protective factor against alcohol use. They also found that teammates and friends who engaged in sports had more of an influence on their drinking behaviour than their non-athlete friends. Additionally, Blomfield and Barber (2010) state that athletes who exhibit behaviours which lack inhibitory control, such as

aggression, antisocial, and deviant behaviours, put their teammates at risk of engaging in the same behaviours. However, risk-taking has been found to be more common in adolescents and young adults, often reducing with increased age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds et al., 2019) and that peer influence can play a large role in adolescents (Gardener & Steinberg, 2005).

Previous research in the field has often identified sport culture and masculine athlete environments to be a large contributing factor towards risky behaviour of male athletes (e.g. Coakley, 2007; Crosset, 1999; Ford, 2007; Messner & Sabo, 1994; Nelson, 1994; Sabo & Runfola, 1980; Warshaw, 1988). It is commonly assumed that athletes are conditioned to follow rules and societal norms, and that the athletic environment allows athletes to form positive relationships in a structured environment (Eitzen, 2014). However, Kreager (2007) states that it is also often speculated whether, rather than athlete environments advocating good sportsmanship and discipline, these environments can promote antisocial behaviour. A culture can develop when intense bonds are formed between athletes which can influence involvement in antisocial and risky behaviours (Eitzen, 2014). This culture is often referred to as 'jock culture'. Athletes can be taught from a young age to display masculinity, including disregarding pain, exuding strength and toughness, adopting typically masculine characteristics and attitudes, being fearless, and asserting dominance (Crosset, 1999). These masculinities can manifest and result in heightened sense of entitlement and hyper-masculinity (Eitzen, 2014). Messner and Sabo (1994) suggest that these masculine athlete environments can result in male athletes becoming intolerant of others and more susceptible to engaging in offending and risky behaviours.

Furthermore, it has been reported that antisocial behaviours and social deviance within the collegiate athlete population can be attributed to over-conformity to the norms and values associated with the team or the sport (Hughes & Coakley, 1991). For example, Coakley (2007) found that athletes involved in violent sports reported that their athletic involvement has influenced their off-field behaviour. On-field success can be attributed to cultural norms surrounding male aggression, power, and dominance (Davis & Smith, 2009). These same characteristics can also lead to off-field problems regarding sexual violence (Gage, 2008). Hughes and Coakley (1991) explain that collegiate athletes tend to regard over-conformity, through involvement in behaviours which satisfy coaches and teammates, as necessary for success and acceptance within the team. However, Schwartz and Nogrady (1996) suggest that group affiliation, such as within a sports team, can be less influential than the attitudes of the

individual members of the group. Therefore, the more peer support for a particular behaviour, the more likely other members of the group are to engage in that behaviour.

Moreover, more-established team members can influence less-experienced members of the team to display masculine traits, leading to the maintenance of long-standing team norms (Crosset, 1999). For example, Waldron and Kowalski (2009) report that 'hazing' or initiation rituals, often involving acts which are challenging, violent, and/or humiliating, are common practices initiated by existing members and experienced by new members of a sports team. These can serve as a means for well-established members of the team to influence new and younger members to conform to the behavioural norms of the team (Sabo, 2004). These rituals also maintain the hierarchical structure within the team in which individuals are placed depending on their perceived superiority or inferiority (Bryshun & Young 1999; Sabo, 2004; Trota & Johnson, 2004). However, it could be argued that athlete violence towards others does not differ from violence demonstrated by male non-athletes (Kane & Disch, 1993), and is a product of society which historically endorses male dominance (Crosset, 1999).

It can often be the case that athletes can create and maintain their own set of social norms and rules. For example, Kreager (2007) states that there is a widespread negative view on performance-enhancing drugs held by the general population. However, in the athlete population, the use of these substances can be modelled and reinforced by team members, leading to them being widely accepted as a means of improving athletic performance, despite the regulations which are set by professional sporting bodies. They can also be appealing due to the often appearance-enhancing properties of some performance-enhancing drugs (Hayes, 2014) which could also be attributed to the masculine sport environment. Additionally, this can be further reinforced in some cases by negligent or fraudulent drug-testing. For example, it has been alleged that the urine samples of over 1,000 Russian athletes, in both Olympic and Paralympic sports, had been replaced with clean samples in order for the athletes to continue competing, with some of which winning Olympic medals (BBC Sport, 2016). It has been suggested that, in these cases, the privileges received as an athlete should be taken away and they should be disallowed from further involvement in professional sport (Boswell, 2014). Elite professional athletes and sporting bodies have a position of power through a platform in which they can reach a wide population, and their 'athlete privilege' communicates a detrimental message to the general population, especially young people and aspiring athletes.

This type of protection of athletes can also occur at a lower level with high school and collegiate athletes. Collegiate and elite professional athletes can generate great revenue and increase exposure for the institution or club, and the better an athlete or a team does, the more attention and money the institutions and clubs will receive (Davis & Smith, 2009). Even with the media attention and coverage on sexual violence within colleges, athletic platforms have isolated their high school and collegiate athletes, leading to the continuation and reinforcement of risky sexual behaviour and the creation of these problematic behaviours becoming norms (Gage, 2008). Colleges and universities may be reluctant to accept that there is a problem and accept player liability as this could threaten the career of aspiring professional athletes (Davis & Smith, 2009). As witnessed with US Universities such as Baylor and Penn State, it can be a whole organisation which creates and reinforces the toxic culture which depicts the male athletic perpetrators as holding no accountability and the females involved as ‘groupies’ (Nelson, 2018). Offending and risky behaviour by collegiate athletes draws attention from the media and can damage the image of the institution and so it is often the case that they are able to protect themselves from external penalties (Gage, 2008). Nelson (2018) reports that a 2014 U.S. government report revealed there are different resolution processes for collegiate athletes with regards to sexual violence, with 20% of colleges reporting that they had given oversights to their athletic sectors.

6.2 Present Study

The main aim of the study was to develop a further understanding of the impact of athletic involvement and the factors which can contribute towards athlete risky behaviours. Due to the popularity and influence of sport, research into protective and risk factors of athlete risky behaviour is paramount. Despite the findings of previous research, the problem still exists. This could be largely due to the lack of qualitative data directly collected from elite professional athletes, and because much of the previous research has used questionnaire-style data collection methods or statistics. This limits the complexity of data which can be collected, and as a result, crucial factors which are protective and encouraging of risky behaviours may have gone unidentified. Furthermore, a considerable amount of the previous research into the protective and risk factors of athlete risky behaviour has focused on adolescent athletes, and so these findings cannot necessarily be generalised to adult elite professional athletes without further investigation.

The influences of risky behaviour of athletes should be extensively researched at all levels. In doing so, protective and risk factors which are unique to specific levels of sport, such as the celebrity status which can come with elite professional athlete lifestyle, can be identified. Early interventions can be developed for young athletes, such as those in school and college, in an attempt to modify potentially harmful long-standing social norms in the sporting environment. Additionally, interventions can be developed for more well-established athletes, such as those who play sports professionally, to educate them of the potential risks which can arise within the current climate of the sporting environment. This could aid in the reduction of current rate of elite professional athlete risky behaviour, as well as in the prevention of older teammates influencing younger teammates to conform with potentially detrimental current social norms.

To achieve this, the study had five main objectives. The first objective was to establish how athletes believed that their athletic involvement had impacted them. Previous literature suggests that athletic participation can have substantial beneficial impacts (e.g. Agans, Johnson & Lerner, 2017; Marsh & Kleitman, 2003; Phillips & Schaffer, 1971; Simpkins, 2015; Wendling et al., 2018), and can have a significant social impact (e.g. Barber, Stone & Eccles, 2010; Blomfield & Barber, 2010; Fredricks & Eccles, 2005; Haynie, 2002; Kavussanu, 2008; Kavussanu & Boardly, 2009; Vest & Simpkins, 2013) which can differ between sports (e.g. Caokley, 2007; Gage, 2008; Veliz, Boyd & McCabe, 2015). There has been also been uncertainty as to whether these social impacts are present to the same degree in the general population (Crosset, 1999; Kane & Disch, 1993). It is important to understand the impact of sport on athletes in these ways as these factors have been previously identified as having an influence on fewer antisocial and risky behaviours (e.g. Buckman et al., 2011; Kwan et al., 2014; Miller et al., 2007; Spruit et al., 2016), and increased antisocial and risky behaviour (e.g. Ford, 2007; Kwan et al., 2014; Leichliter et al., 1998; Nucci & Kim, 2005; Veliz, Boyd & McCabe, 2015).

The second objective was to understand the identities which athletes can adopt through their athletic involvement. Previous research suggests that athletes can adopt masculine characteristics through the athletic environment which can also lead to off-field antisocial and risky behaviour (e.g. Coakley, 2007; Crosset, 1999; Davis & Smith, 2009; Eitzen, 2014; Kreager, 2007; Messner & Sabo, 1994). It has also been proposed that athletes can adopt roles within the hierarchical structure of sports teams, dependent on their perceived superiority and inferiority, and determined through risky initiation rituals and other common practices

(Bryshun & Young 1999; Sabo, 2004; Trota & Johnson, 2004). Additionally, it has been reported that an athletes' image can be protected by sporting organisations and bodies after engaging in risky behaviours (e.g. Gage 2008; Nelson, 2018) because athletes can generate great revenue and increase exposure for the institution or team (Davis & Smith, 2009). In doing so, the image of certain athletes can often be protected or manipulated for the media. This may then reinforce the engagement in these behaviours in athletes, due to the lack of or lenient penalties, and may portray a detrimental message to the general population.

The third objective was to, based on the findings from Study One of the current thesis, further understand the types of risky behaviours that elite athletes commonly engage in. This was done to examine whether the common themes would be supportive of the themes generated in Study One, and to examine any new themes of risky behaviour which had not been identified previously. Methods used in Chapter One had limitations in the way that the data was collected through secondary sources. This could mean that the information collected was inaccurate or that information had been withheld. By talking directly to athletes about their personal experiences of risky behaviour, the additional qualitative data may be able to provide support for or identify inconsistencies and/or gaps in the previous findings.

The fourth objective was to explore the factors which can increase and inhibit risky behaviour in athletes, based on the personal experiences of athletes. Previous research has found that protective factors against risky behaviour can be provided by strong bonds with prosocial individuals such as parents and coaches (Ford et al., 2017; Hirschi, 1969) and by increased fair play attitudes and values within a team (Stephens & Bredemeier, 1996; Rutten et al., 2008). Contrastingly, research has found that risk factors of risky behaviour can include negative attitudes related to fair play values (Junge et al., 2000), masculine sport environments and characteristics (e.g. Coakley, 2007; Crosset, 1999; Ford, 2007; Eitzen, 2014; Kreager, 2007; Messner & Sabo, 1994; Nelson, 1994; Sabo & Runfola, 1980; Warshaw, 1988), type of sport (e.g. Coakley, 2007; Gage, 2008; Veliz, Boyd & McCabe, 2015), social influence (e.g. Barber, Stone & Eccles, 2010; Blomfield & Barber, 2010; Fredricks & Eccles, 2005 Haynie, 2002; Kavussanu, 2008; Kavussanu & Boardly, 2009; Vest & Simpkins, 2013), and over-conformity to team social norms (e.g. Davis & Smith, 2009; Hughes & Coakley, 1991; Sabo, 2004). By understanding what can encourage and inhibit risky behaviours, through direct personal accounts and beyond previous quantitative findings, appropriate actions can be implemented to aid in the reduction and prevention of such behaviours in the athlete population.

Finally, similar to the third objective, the fifth objective was to expand on the findings which were collected in the previous empirical chapters (Study One and Two) of the current thesis whilst identifying any issues not identified in previous research. As the current study had a qualitative research design, it was possible to develop previous findings whilst developing a further understanding of the issues surrounding athletic involvement and risky behaviours. The findings from the current study are valuable, not only because of the qualitative nature but also due to the unique sample of athletes from a range of sports.

The majority of previous research which has investigated the issues surrounding athletic involvement and risky behaviours in athletes have focused on adolescent, high school, and collegiate athletes rather than elite professionals. In addition, the research in the area has often focused on athletes from only a single sport and one type of influence on behaviour (e.g. social influence). The current research is novel and exploratory in nature, aiming to identify new areas of research and innovative practical implications. On the basis of previous research, the objectives were:

7. To develop an understanding of the impact of athletic involvement.
8. To investigate the personal characteristics and identities that athletes possess and adopt, alongside how these can have an effect on or be a product of athlete/image/stereotypes.
9. To explore the personal experiences and accounts of athletes regarding their offending and risky behaviours.
10. To explore the personal views of athletes regarding influences of offending and risky behaviours in the athlete population.
11. To extend the data previously collected in earlier chapters, enabling the identification of any issues not previously investigated.

6.3 Method

6.3.1 Sample

A total of 11 male athletes aged between 19-31 years ($M = 26.64$, $SD = 3.33$) were recruited through volunteer and snowball sampling, through the use of social media platforms, and advertisements in gyms and other sporting areas. For athletes to be included in the study, athletes had to have been competing in their sport for at least five years, and had to compete in their sport for some type of monetary value or title. Five participants were rugby players (one

of these participants had also competed as an ice hockey player, and another of these participants had also competed in rowing), three participants were Mixed Martial Arts (MMA) athletes, two participants were boxers, and one participant was a golfer. The demographics of the sample are displayed in Table 6.1 below.

Table 6.1 Demographic data of the sample.

Participant	Age	Location	Sexuality	Relationship status	Sport type
1	23	UK	Heterosexual	In a relationship	Golf
2	29	UK	Heterosexual	Married	Boxing
3	28	Hong Kong	Heterosexual	In a relationship	Rugby & ice hockey
4	19	UK	Heterosexual	In a relationship	Boxing
5	25	South Africa	Heterosexual	Single	Rugby
6	27	UK	Heterosexual	Single	MMA
7	28	UK	Heterosexual	Single	MMA
8	26	UK	Heterosexual	Co-habiting	MMA
9	29	Ireland	Heterosexual	Married	Rugby
10	28	UK	Heterosexual	In a relationship	Rugby
11	31	UK	Heterosexual	Single	Rugby & rowing

6.3.2 Design

Semi-structured qualitative interviews were conducted, with the interview questions developed based on issues raised in Study One and Two. This was to develop a deeper understanding of factors identified through the previous chapters, and also those which could not be identified through quantitative research methods. The interview schedule was design with the results from the first two studies in mind. The schedule included items based on personal experiences of risky behaviour based on the findings from Study One. The interview also included questions about personal characteristics and influences affecting risky behaviour, based on the findings from Study Two. These items were also included with the intention of understanding environmental factors which were not identified in Study Two. The interview schedule also included questions regarding benefits of athletic involvement and protective factors against risky behaviours as these were not identified in the previous studies. The

interviews first focused on the athletes' views of the impact of athletic involvement, then personal experiences of involvement in risky behaviours, the influences of these behaviours, and finally the personal characteristics and identities of athletes, including athlete image and stereotypes.

6.3.3 Materials

The interview schedule was developed based on issues identified in Study One and Two of the current thesis. Participants were given the participant information sheet (see Appendix C1), and a consent form (see Appendix C2) to sign. Participants who were unable to physically sign consent forms gave verbal consent which was recorded. For video-call interviews, Skype and a webcam were utilised on a desktop computer. A semi-structured interview schedule (see Appendix C3) was constructed and used during the interview. An Olympus DM-5 Dictaphone was used to record the interviews. Once interviews were completed, participants were given a debrief sheet (see Appendix C4). Headphones were used to listen to interviews whilst transcribing for confidentiality, and to ensure ethical guidelines were adhered to. Interviews were transcribed on Microsoft Word 2016 processor.

6.3.4 Procedure

Firstly, participants were given a participant information sheet to read through and a consent form to sign. Participants who were unable to physically sign consent forms gave recorded verbal consent. Skype was used for interviews where the participant either requested an interview via video-call, or when it was not possible for the participant to attend a face-to-face interview. Before the interviews began, participants were reminded of their rights and given time to ask the researcher any questions. Each interview had a duration of between 20-60 minutes. Following the interview, participants were given a debrief sheet to inform them of the aims of the study and to give them points of contact should they be required. After seven days, if the participants had not chosen to withdraw their interviews, the voice recordings were transcribed ready for analysis.

6.3.5 Analysis

Thematic analysis was used to analyse the interview transcripts in order to identify patterns and themes across the sample. The findings from the previous empirical studies influenced the types of questions developed for the interviews. An inductive approach was used. Thematic analysis is a widely used qualitative analytic method within the social sciences. Firstly, qualitative data was transcribed before noting initial ideas. This is followed by the generation of initial codes, developing themes, reviewing the themes, generation of names and creating definitions of the identified themes, and producing a report (Braun & Clarke, 2006).

6.3.6 Steps to ensure quality of data

This section will outline the steps that were taken to ensure good quality data was collected for this qualitative study. An eight-step model to ensure the quality of qualitative data. These key markers are (1) worthy topic, (2) rich rigor, (3) sincerity, (4) credibility, (5) resonance, (6) significant contribution, (7) ethics, and (8) meaningful coherence (Tracy, 2010). To ensure a worthy topic, a gap of knowledge was identified in previous research, the study was novel, relevant, and was an extension of Study One and Two of the current thesis. Rich rigor was achieved through the collection of rich data from a sufficient sample size, and appropriate data collection and analysis processes. The researcher was transparent regarding the methods used for the study and the challenges faced, ensuring sincerity. The research has credibility as the research has detailed description and involved a triangulation process. The data has naturalistic generalisations and transferable findings, ensuring resonance. Furthermore, the research provides significant contributions to knowledge and outlines ethical considerations, particularly in a study which involves the discussion of sensitive issues. The study achieves its aims, uses methods which fit the study aims, and connects literature with the findings and interpretations meaningfully, resulting in meaningful coherence.

6.3.7 Ethical Considerations

The research received full ethical approval from SREP at the University of Huddersfield prior to data collection. The research was performed in accordance with the BPS ethical guidelines (BPS Code of Human Research Ethics, 2014).

The participants who volunteered for the study were first sent a copy of the Participant Information Sheet and the Consent Form before organising an interview. This gave the

participants time to consider their participation and also gave them time to ask questions if required. Once the participants agreed to be involved, they were contacted and then asked if they had any questions, alongside clarifying their rights which were outlined on the consent form. If they confirmed that they were fully informed and willing to participate in the study, they were then asked to sign the consent form (or give recorded verbal consent on occasions when it wasn't possible to obtain a physical signature). Following the interviews, participants were given a debrief sheet which included the contact details of the researchers, as well as helpline numbers to signpost any participants who were affected by the issues raised in the interviews.

All interviews were purposefully conducted face-to-face or via videocall. This was done so that facial expressions, body language, and vocal changes consistent with signs of distress could be more easily recognised by the researcher. Participants were told before interviews that they were not required to answer questions which made them uncomfortable. They were also informed that they could have breaks during the interview, and that they had the right to withdraw completely from the interview at any point, including up to seven days after the interview, without giving a reason. Ethical guidelines were fully adhered to, with the researcher moving on from questions which one participant appeared uncomfortable with in one particular interview. Participants were asked regularly if they were okay to continue.

The interview recordings were destroyed following transcription. The interview transcripts were anonymised, and participants were given pseudonyms to protect their identities. Other details were also concealed or changed if the participant requested, or if it were to reveal the identity of the participant. They were told before the interview that they could discuss anything with any personal details being changed or concealed. Interview recordings and transcripts were also encrypted using password protection, to which only the researcher had access.

6.4 Results

Detailed analysis of all 11 interviews resulted in the generation of five main specific themes. The five themes were labelled as (a) impact of athletic involvement, (b) athlete identities, (c) athlete risky behaviour, (d) factors which increase athlete risky behaviour, and (e) factors which inhibit athlete risky behaviour. Table 6.1 below shows which of the main themes were present in each of the participant interviews. Within each of the main themes there were also a number

of subthemes identified. These subthemes are discussed in their respective sections in turn, following each of the main themes.

Table 6.2 Theme identification with each participant interview

Participant	Impact of athletic involvement	Athlete identities	Athlete risky behaviour	Factors which increase athlete risky behaviour	Factors which inhibit athlete risky behaviour
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X		X	X
5	X	X		X	
6	X	X	X	X	X
7	X	X	X	X	X
8	X	X	X	X	
9	X	X	X	X	X
10	X		X	X	X
11	X	X	X	X	X

Note. X indicates a presence of the theme within the participant interview.

Theme 1: Impact of Athletic Involvement

All eleven participants discussed how involvement in sport had impacted their lives. Within this theme, four subthemes were identified (see Figure 6.1). In all cases, participants discussed the positive effects of athletic involvement. Additionally, nine out of eleven participants discussed their experiences of the sporting culture and environment, both positive and negative. Nine out of eleven participants also talked about the differences between elite athletes and non-athletes, and also of their experiences and views of the differences between sports. These included differences in characteristics, behaviour, and culture, showing the impact of athletic involvement and different types of sports on individuals.

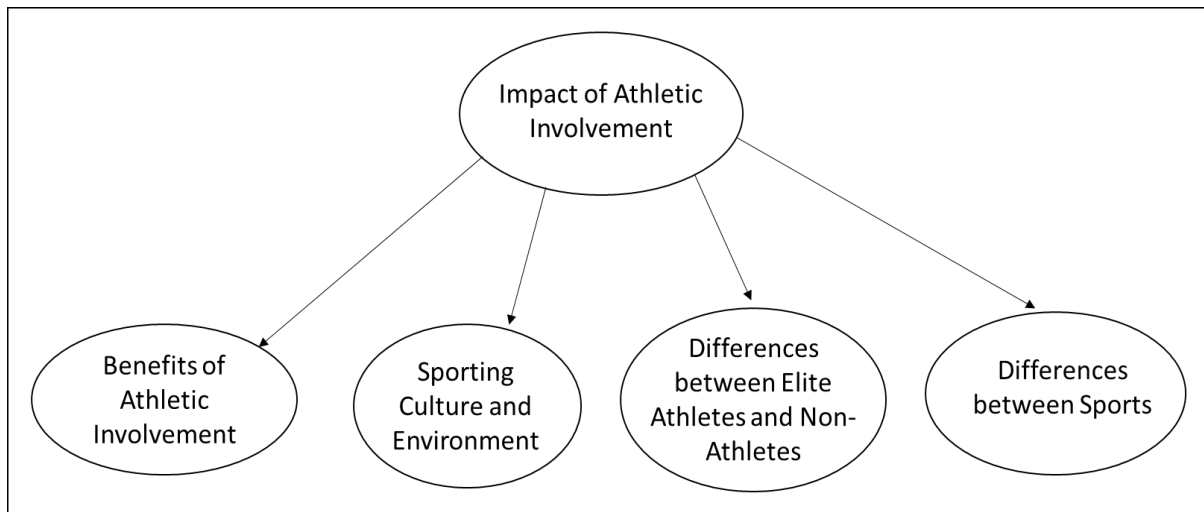


Figure 6.1 Main theme “Impact of Athletic Involvement” with subthemes.

Benefits of Athletic Involvement. In this subtheme, the participants discussed the beneficial impact that involvement in sport has had on them. In all cases, participants enjoyed the social side of sport. For example:

But, yeah, no it’s really nice because you kind of make nice little social circles. (P3)

Three participants referred to the feeling of community spirit. Participant six explained:

Oh yeah, well, the thing about combat sports is it’s a community, right? You think about combat sports and you think it’s going to be a load of thugs, a load of crazy people but the best part is when you go there, and you train, and you become friends with a lot of people. It’s more like a community then. And then when you go out and you see the teams in sports, well, teams and people and whatnot, you kind of get to know them and it’s like a lot of networking. So, it’s like really close and compact. If you see anyone with a cauliflower ear like this, you kind of know they play rugby or Mixed Martial Arts so it’s pretty easy to identify pretty early on. And then once you’ve got like a mutual agreement, everyone’s friendly basically in this sport, so yeah. (P6)

Two participants even described their team as a family. An example can be taken from participant 10:

Yeah, good, I love it. It’s good fun... I just love being with the boys, I guess. It’s good, it feels a bit like a family, sort of thing. (P10)

Eight out of the eleven participants explained how athletic involvement increased their purpose and drive to succeed, resulting in higher work ethic and ability to work towards their goals.

Participant one revealed:

Sport has definitely moulded me over the years. It's given me, like I mentioned a couple of questions ago, sort of, the drive that I have in...in whatever. You know what I mean? Given choice I want...you know what I mean...I will give 110% if I see something that I want to do, and want to succeed in. I'll give it my all. It's something I learned from my dad through sport, which, like I say, if I hadn't gone into sport, I probably wouldn't have that same drive and work ethic. That's all, like I say, as I learned in all sports that I've played. (P1)

Three of these participants also discussed how sport had influenced their choices in work, education, and lifestyle interests. Participant four explained:

So, yeah, erm, actually competing and being in sport has got me to where I am today. What job I want to do, and what education I want to take. (P4)

Four participants discussed how involvement in sport had increased their confidence both inside and outside of the sporting context. Participant eight revealed:

More so, it's had a massive influence on my confidence. I think... prior to engaging in these sports I'd probably say my level of confidence was not as high, and I'm adamant that if I was not able to get involved with this fighting... and develop myself... I would not have the confidence I have today in everyday life, with regards to how I act in front of other people... and, not just my confidence in regards to fighting, I mean generally the way I approach individuals, the way I... the way I... talk to others, and in all aspects of working this is now probably improved. (P8)

Sporting Culture and Environment. In this subtheme, the participants talked about their experiences of the culture and environment surrounding their sport, and how this has affected them personally. This included situations both within and outside of sport. Eight of the participants discussed their experiences of peer pressure, group mentality, and conformity within teams.

But, it's...it's a weird...it's a hard one to describe but yeah, it definitely has...definitely has an impact on you. As a prime example, where I used to play football we used to have every week, there'd be a man of the match award...and every week that person had to drink a pint of passion, which is obviously top shelf...you know what I mean, top shelf shots, and...that is peer pressure in its own right...you might not want to do it but you don't have much of a choice. If you want to get on well with the team, you've gotta do it...and that's a prime example, so. (P1)

Participant eight also revealed that group pressures can also derive from themselves rather than others:

I don't think they pressure you, no. They don't pressure you at all. You pressure yourself to some extent. What I mean by that is, they won't judge you if you don't conform to these norms, but you try to. And, you know, a great one is...if your coach turns around with you and says, you know 'will you fight this guy next week?', you may wanna say no but because people are around you...and even if you do say no, nobody would judge you, but you don't. You say yes because you want these people to believe that you're the top. It's not...so, there's not pressure, there's more of a need. There is some overall pressure. I mean, I guess I've felt it a bit as well when I'm training, you know, you wanna be the top dog...and...and...and one of the last things anybody ever wants in an MMA gym is...unless the more submissive ones who aren't in it seriously, nobody wants to be seen as the weakest link. (P8)

Additional support for this was discussed by participant eleven:

Yeah, I mean, testosterone flying around changing rooms. Also, when you're playing sport, you're a bit younger, you're still figuring out who everyone is, who yourself is, etcetera. You know, so, people are less mature. Perhaps, you know, expectation is the wrong way to say it, but it's almost self-fulfilling in that there is this culture and therefore new younger people coming into the culture feel as though they've got to fit into that culture already. And then it just continually, continually goes around, and self-perpetuates. (P11)

Masculinity within male sports was discussed by five participants, with participant two stating:

People who were perhaps not as respected fighters in the gym that try and overcompensate and then would be trying to, erm, emulate certain characteristics. So, they'd be trying to, you know, tell stories about or, you know, some sexual situation they had with a woman or some woman that's, some engage-, some sort of interaction they've had with a woman or also where they've gone out and got into a fight and they've, like, knocked five guys out. That sort of thing. So, they kind of, they're overselling it because they think that's something that holds currency within the group... I think predominantly sport is male dominated, isn't it? So, again, it's changing over time, but I think, erm, in most sport that's televised and that's seen as, kind of, "elite" if you like it tends to be male dominated. And I think with any, kind of, male dominated environment these kind of, erm, hyper-masculine overt behaviours and characteristics come through, and so, and that's, I guess, as you say it's an opinion, I'm guessing, but observations of like, so I have friends that are part of rugby at quite a high level and they, erm, seem to do the same sort of thing. The characteristics are there. (P2)

Three of the participants mentioned 'lad banter' within the sporting environment. Participant two revealed:

Although I guess there's kind of a banter element of it, so if you weren't to behave in a certain way, if you had to, for example to be like, I don't know, "oh, I've got a girlfriend. I'm not bothered" and the guys would be like "fucking hell don't be such a pussy" or something... (P2)

Participant eleven also explained the negative aspects associated with this:

Due to the culture of the sport you've probably got to be reasonably thick-skinned. There's quite a lot of... it would get termed as banter, you know, and poking fun at people... which I think in other environments could be construed as bullying, but it's just, kind of, nature of rugby. (P11)

Differences between Athletes and Non-Athletes. In this subtheme, participants discussed the ways in which athletes differ from the general population. Five of the participants expressed that athletes possess heightened confidence when compared to non-athletes.

Confidence... in... confidence in self-esteem, and then confidence in group dynamics, and... stuff like that. (P9)

Three of these participants also explained that this increased confidence can manifest in situations of confrontation and potential violence. This involved confidence in their ability to handle confrontational situations and/or to fight.

... you see when people don't understand where the line is...in a social...in a social confrontation of where words end, and physicality begins. Do you see what I mean? Like...because they...they have got away with it for...for so long, maybe, in other social groups because nobody...nobody wants the confrontation, whereas...whereas...I don't...I don't...I don't want a confrontation, but the difference is, I'm comfortable with a confrontation, and I'll easily let it...let it get there if it...if it...if it needs to. I'll try and divert away from it, but if...if...if somebody wants to take it there...without...without...without them knowing it...it'll get there. (P7)

... athletes are much more confident, or they give off to be. I wouldn't say they're more aggressive, no, but I'd probably say they are far more willing to fight in public with a stranger. If something kicks off they're far more likely to erupt because they know what they can do. (P8)

Five participants discussed levels of risk-taking in athletes when compared to the general population. Participant six expressed that athletes are often involved in higher risk-taking than the general population:

I'd say definitely in elite sport there are way more risk takers...at the elite level...than it is in the general population. Overall, with a lot of the things they do, even outside of sport, I'd say they take way more risks than the general population. But then I think you've also got other circumstances where people will try and play it safe, and that's just their personality. So, I think it's person-dependable, and sport dependable, but yeah definitely (laughs) more risk takers than not. (P6)

Participant ten offered a different approach towards this view, stating that the view of heightened levels of risk-taking in athletes may often be due to the openness of the athletic population:

I feel like sometimes athletes are just more out in the open, whereas other people might do it and they might not say anything because they don't say it, they don't want to say it to their wife or their husband or anything like that. Whereas in a team situation, you could be more proud to want to say it in a team situation. But then I also want to say yes because sometimes when obviously if they've done well in sports and the endorphins are running wild and stuff like that, you do some silly things. (P10)

Three participants discussed that athletes tend to be more competitive and have a higher drive to succeed.

I guess a sense of drive, work ethic, teamwork, kind of... I guess a bit of empathy. Also, people that don't play sport might not get, might not understand someone's sheer bloody-mindedness to make something work and be a success. (P11)

Finally, one participant expressed the aggression and hyper-masculinity which can derive from the being involved in elite sport and would not typically be experienced in the general population.

Erm, I think the group element, so being part of a group and, kind of, a group identity, and with that, again, is probably confidence. Erm, I think, so for example friends that I met from university that weren't involved in any sort of sport when I was an undergraduate, they would not have, they didn't perhaps have a big group of male friends, they didn't have a perhaps strong identity, like a hyper-masculine identity... so they would be, erm, if I'm honest generally nicer people. People that would, you know, they're not trying to provoke a fight, they're not taking the piss out of people, or they're not, erm, being cocky, all those sorts of things. So, friends that weren't part of sports or even played, were part of some sort of, I had a friend that was part of like a band and so he had the male dynamic but it wasn't sport associated, and he was just like, you know, quite a considerate person, erm, would listen to other people's opinions and not just force his own opinion, which is, I think something that comes with being in a sporting environment where it tends to be faster paced and perhaps a bit more aggressive, so to have your way, you know, to encourage somebody you'd be shouting "come on! Let's

just fucking do it! We've gotta get this done!" sort of thing. Whereas, without that group sporting dynamic people didn't endorse those sorts of characteristics or traits. (P2)

Differences between Sports. In this subtheme participants discussed the differences between their sport and other sports. These derive from either personal experience when an athlete has played more than one sport, or from witnessing these differences through other means. Six participants discussed the differences in characteristics between athletes in different sports. For example, when conversing about the differences in characteristics of rugby and badminton players, participant three expressed:

But I, I think a lot of people who, you've got to be a specific type of person to, to play, like, rugby... If you're a new guy, you've never played the sport before, you go for a couple of lessons and you go for a drinking session, you, you just won't turn back up again. You'll take up badminton or something if you, you're not really into that sort of thing [laughs]... I tried to, when I left the rugby team, I actually tried badminton at Uni [laughs] and I was like "fuck that" and they were just, you know [laughs] they were just the most boring people I'd ever met. [Laughs] it was proper shit. Like, oh my god. (P3)

In addition, when discussing the differences in characteristics between combat sports and other sports, participant eight revealed:

I'd say slightly more aggressive. I'd say slightly more aggressive definitely. I'd also say, another difference that they'd have with these individuals is...again, I know I've said it multiple times, far...far...far more fearless than other athletes... hugely. (P8)

Six participants outlined the differences between individual and team sports. Participant eight talked about the differences between combat sports and team sports:

In... in this sport it's different to other sports in the sense that in football you play for a team. In this sport, when you're up and coming you're pretty much a nobody so you've gotta make a name for yourself... and, you've gotta wanna have promoters bring you on their show... so you've gotta do anything you can to make yourself stand out. (P8)

Four participants talked about the differences in attitudes in sports. These attitudes centred mostly around differences in egos and respect.

Yeah, so, with footballers you get, you tend to get a lot more egos, and a lot more, erm, I'd say like cockiness. Erm, so, yeah. They're a lot more egotistical in football, but within a boxing gym, erm, there's a lot more humble people. Maybe that's because of like you, you, you know, you beat each other up technically. So, that kind of like confidence and that ego gets basically left at the door as soon as you enter. (P4)

Furthermore, when discussing the attitudes of rugby players and football players, participant nine explained:

No, because I think they're all, I suppose, it's just the values of the game. You're quite grounded and you're always asked to be humble and when you're... you're appreciative of the opposition, you clean the changing rooms after, all that sort of stuff. Whereas football, I think, you're playing back into education, most of them are probably not educated, whereas a lot of the rugby lads, they were, kind of, pushed in team environments to get into university, college degrees... whereas with footballers it's, kind of, it's a bit different in terms of the depths for personnel... (P9)

Lastly, two participants described how different sports can attract individuals from varying socio-economic backgrounds.

Tennis is a middle-class sport, so you don't expect it as much. Formula One racing is a very, very rich person's sport. You don't expect it as much. Boxing is a working-class sport. Football is a working-class sport. These are sports that poor children play because it's cheap. And then, the people that are gonna get good at it are more likely to also come from these lower backgrounds. And the people that aren't, are gonna be around these individuals from lower backgrounds because that's the sport they compete in, where the majority of individuals are from these lower backgrounds. And, I think that's why you get footballers, rugby players, and boxers who have this, more of a council estate attitude. Whereas, then you get... formula one drivers... if you wanna get into formula one it's one of the most expensive sports. As a kid, your parents have to buy you a go-kart... thousands of pounds. The only kids that are gonna do that are kids who are gonna be from well-established backgrounds. And these... I'm not saying these individuals that are brought up in these well-established backgrounds don't take risks, don't take drugs, and do all of that stuff, but I think they're far less likely to be in an environment that promotes it. And, the risks they take will be completely different... and that's why you get these tennis players who... you know, it's a softer sport. Different people go and... go and do these sports, and I think that has an impact. I think if we... if for whatever reason tennis was overpopulated and interested by individuals living in rough areas then, over time I think tennis would then become more of a risk taker's sport. So, I think wherever... you're more likely to get people coming from a more rougher, antisocial background involved in that sport, the more you're gonna get them. (P8)

Theme 2: Athlete Identities

Ten of the eleven participants discussed the aspects which can create the athlete image. Within this theme, three subthemes were identified (see Figure 6.2). All ten of these participants discussed the characteristics of athletes within their sports. In addition, seven participants

discussed the different roles that athletes can adopt, and five participants talked about the image which can intentionally and/or unintentionally be portrayed to others.

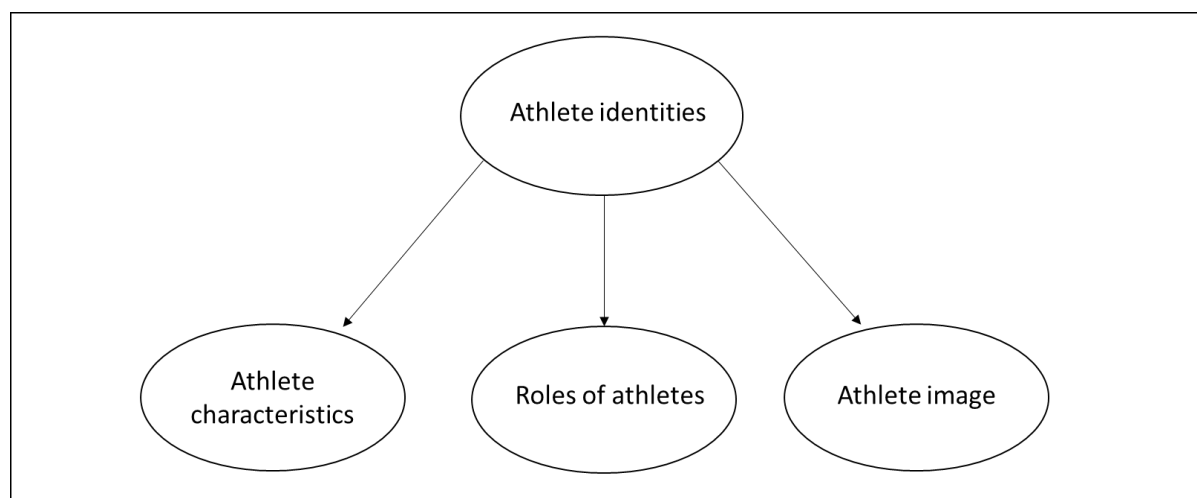


Figure 6.2 Main theme “Athlete Identities” with subthemes.

Athlete characteristics. In this subtheme participants discussed the characteristics that they personally possessed, or common characteristics which they have witnessed in other athletes, in order to be successful. Five of the ten participants who discussed athlete characteristics talked about heightened egos and arrogance.

...you know the visualised mentality ‘if I can see it, I can believe it, I can do it’, right? (laughs) Which is a mentality I think that is quite good. But it just shows in this sport you can’t have any doubt in yourself. I think it goes a bit beyond confidence, you know? It goes a bit further than that. Maybe into a bit of arrogance, you know? You’ve got to believe so much in yourself that you can become something great. (P6)

I’ve kind of got this demeanour of...in some senses if I can fight and beat other people up, I’m better than other people in many aspects, so it’s...it’s boosted my ego quite a lot. I guess it could borderline be arrogance, but it has changed me in that sense, definitely. (P8)

Drive, focus, determination, and motivation were aspects described by four of the participants as some of the most important characteristics for athletes to be successful.

You’ve gotta be driven, number one. If you’re not driven to do well in sport you can never be good at it. You’ve gotta be competitive and have...well I said drive, you’ve gotta have the drive to win, simple as that. And, you’ve gotta have the desire to be the best that you can physically be, whether it means waking up at God knows what hour in the morning, you’ve gotta have that driving focus and competitiveness within you...which if you don’t have you simply won’t be...won’t be good at whatever you choose to do. (P1)

Yes...determination is probably the most important thing really. You have to...it's...it's easier not to do it. It's always easier not to do it. So...you've got to have some kind of motivation, yeah... (P5)

Four participants revealed that athletes can often be confrontational, aggressive, opinionated, and stubborn.

... I would be quite confident, confrontational, more argumentative, even if, you know, if a senior colleague or something was to criticise me or say something I didn't think was right I'd definitely be happy to, kind of, thrash that out, have an argument with them, which I think is a clear relationship and by-product of being involved in boxing. (P2)

... rugby's quite an aggressive sport. When I was...when I hit 13 or 14, that's when I started to become quite a bit more aggressive than I was when I was younger. And I wouldn't say that rugby made me more aggressive, I'd say I got more aggressive just anyway...and rugby, kind of, encouraged that. It was...it was a good thing...to be aggressive. (P5)

I've never really had a proper job because I don't like listening to people, I don't like people telling me what to do. So, I'm really...I'm quite disagreeable... (P7)

Four participants discussed how confidence is a large aspect of the athlete character. Participant seven explained:

... just concentrating on yourself... being aware of yourself, being aware of your own thoughts... and being... being... just being confident in yourself. Confidence is... confidence is definitely it. (P7)

Three participants shared that they were often involved in high levels of risk-taking.

I just feel like I take risks all the time [laughs] with everything, so. (P3)

I'd say I'm a risk taker, yeah. In sport and outside of sport, yeah. Yeah, I... I do like the overall spoils but I'm willing to put myself there where I could end up with nothing, I guess. (P6)

Finally, two participants explained the discipline and self-control of athletes in certain situations. For example, participant four said:

As you pass through the levels, a lot of self-control... a lot of discipline. (P4)

Roles of athletes. In this subtheme participants explained the roles which athletes can adopt when involved in sports, both deliberately and unknowingly. Five of the seven athletes who

discussed the varying roles of athletes mentioned adopting an alpha male role. Participant seven expressed:

... there is a primal, animal-like hierarchy that's... it's like... a... a... some people are more aware of it than others... (P7)

I like, not the centre of attention, but I like... you know... having... having a laugh with people and being... being... definitely being in the... the... the... the hierarchy of... of being seen at the top, do you know what I mean? Like, if you wanna put a label on it, I'd definitely consider myself a... an alpha male. I'll try and... I'll try and... if anybody challenges me or whatever, I'll definitely rise to that. (P7)

Participant nine expressed his viewpoint as a former elite athlete and coach at present, expressing that times have changed with regards to the alpha male persona:

Yeah, it's always... it's always down to attitude. Generally being... I suppose it's probably changed an awful lot from back in... a couple of years ago it would've been a lot of alpha male. Now it's, the way education changed and how people are learning stuff, people are more adaptable in how understanding they are to different personality traits. Obviously, I'm a coach myself now, so you're a lot more aware. You want everyone to, you want to put them in an environment where everyone can be themselves. You don't, kind of, try and force that alpha male, sort of, personality on people, but at the same time, yeah, you do, you do kind of, get it with the nature of the physicality within the sport and stuff like that, so. You want, yeah, yeah, I suppose you want tough, abrasive guys for the most part, so... I think it comes with the territory of being in the alpha male, sort of, environment, a lot of gym work, and I suppose, it always, going out as a rugby group you do get attention from women. So, they, kind of, nearly go hand in hand, especially within the game. (P9)

Four participants discoursed that a tough persona was often adopted by athletes, especially in combat sports. Participant two discussed that he had experienced this within boxing:

I guess it was good in terms of, like, identity, it created a bit of an identity around being part of something. The gym that we were associated with, as well, was quite, it was well-known for being in quite a rough area, and the boxers that were known for being quite tough so there's almost an identity you've perhaps took on or had to build up to be part of that gym. (P2)

Participant six also explained that he had witnessed this within his MMA gym:

But I think that people that come in late, like 18 or 19, and they haven't got that, they have to develop it themselves. So, instead of, like, getting it as a kid and bringing it through, they've gotta adopt that tough guy. They've never been a tough guy before so they've then gotta put this persona on that they're a tough guy. And you see it a lot. You'll see people in the gym and they say, 'ah I'd love to fight this guy, I'd knock him out' and

it's like 'ah you've never fought before, you don't know who he is, like, you're speaking like you've had 20 fights and you've not fought once, you know? But people try and adopt it because they think that's the way it should be in the gym. They think, 'I've gotta be a tough guy, I've gotta want to fight the best people'. And, it does differ from person to person and scenario to scenario. (P6)

Two participants expressed that athletes can adopt the role of a 'ladies man'.

... yeah definitely being a ladies man, and being, I think it all, I think it comes from the kind of confidence thing. So, you know that, people kiss your ass as well because you know that you're able to, like, because people know that you can fight. Most men, and boys, but mainly men, I remember I was essentially a boy and there would be men around me that would be kissing my ass because they were scared, so from that you develop a certain confidence, and then I think the observation, your confidence definitely attracts certain female attention and therefore, you become more confident in those interactions, and so then you would perhaps pursue those interactions, rather than it just being something that you, you kind of, it's kind of probably a learnt behaviour. You see that you're getting female attention and then you're more likely to be like 'okay' and then you're more confident to, kind of, run with that, so yeah, definitely, kind of, promiscuity I'd say. (P2)

There were also a number of additional athlete roles which were revealed in the interviews which were only present in single interviews rather than commonly present across the data. Participant two discussed a criminal persona which can be experienced in boxing, although not as common in recent years, due to the nature of the sport:

... a bit of a criminal type... would be associated with being a successful boxer, but I don't think, I think that was when I was doing it, when I first started doing it, that's definitely the kind of traits and characteristics, you didn't get many people from wealthy affluent backgrounds that weren't, like, tough street kids that were doing boxing, particularly not any, not anyone that I came into contact with. But I think nowadays that's changed and it's not the case. (P2)

Participant three expressed that in rugby, an army man style persona can be adopted:

Erm, in terms of rugby, erm, I feel like you kind of, you have to be one of the lads, like if, and you seem to have to, you are, you're in that group of people that you're like, you're kind of like an army guy, you know... you, that's, that's the persona that you kind of have to give off and, and people expect. That's what I found really hard... (P3)

Participant eight discussed a persona of fearlessness which MMA athletes can adopt. Referring to his experience in combat sports he stated:

But there is particular identity. One of them is fearlessness. It's a big one. The whole idea is... is if your coach offers you a fight... what you wanna do is say 'I don't even wanna care who he is', you know? It's one of those ones where someone says, 'do you know who you're fighting?' and they say 'I don't care, I turn up to fight', and there's this new attitude in MMA fighters that they've adopted and it's... it's this idea of you're fighting because you love it, not because you... you're doing it for competition. I know full well that most athletes, professional and amateur, have a strong level of fear before a fight. But, a typical persona to have is you're...you're not fazed by fighting, you'll fight anyone, any day. (P8)

Furthermore, participant eight also offered an explanation for athletes adopting these types of roles:

... there is a certain persona people adopt, and I think that's, from a psychological viewpoint, I think that's through...social reinforcements, and vicarious reinforcements. We see individuals who are very successful getting all the attention, they're acting a certain way, and then other individuals think, you know, 'I'm gonna act like that'. And, they kind of do it, partly, ironically, they do it partly in a way to say, you know 'I'm the same as him', but at the same time people adopt... a great example is Conor McGregor. He is possibly one of the most successful MMA fighters in the last few years. He's definitely got a persona of a character, and...which is cocky...outspoken, confident, and interestingly, I think what many people are aware of is that for him himself, it was his personality that made him get to the top. It was his personality that got him headline shows and got him so much attention, so much money. So, I think younger fighters see that and go 'well if I want to bring attention to myself, that's what I have to do'... So, people see these other fighters who are successful and what they do is they...they try and adopt it, thinking 'look if I act the way the professionals act then maybe I can get their attention'. So, I think in that respect people put on the... personality to get far in the sport. (P8)

Athlete image. In this subtheme participants discussed how the image of athletes and sports can be influenced through various means. Three of the five participants who discussed athlete image during their interviews talked about image expectations. For example, participant one explained how golfers are expected to portray a particular image due to the nature of the game:

Golf's a lot different to a lot of sports... in the fact of, it's seen as an old man's game still. It's not seen as a young person's sport. So, it's seen as... it's what grandads play. And, within the sport, you've got the sort of portrayed image which everybody expects is that it's a, sort of, prim and proper gentleman which plays the sport. That's the sort of image you have to portray. (P1)

Additionally, participant six explained how pre-existing perceptions and expectations can lead to a distorted image of athletes within specific sports:

Like, golfers you would say like 'oh well, they don't really seem like risk takers', but then you look at Tiger Woods, and he had, like, an [array] of women, I guess. (P6)

Two participants described how athletes can behave in a certain way so as to portray a certain image.

There's that sort of pressure on you there to try and sort of up your game, not just in the, sort of, sporting environment, but in, sort of, a lifestyle aspect as well...and you're trying to, sort of, live that...you know what I mean...trying to live that type of lifestyle, as well, on a lemonade wage when you're trying to live a champagne lifestyle. And you can see people try and up their game...so whether it's just the equipment...they're spending more money on equipment or whether they're, you know what I mean, you can see they're dressing better or...all of a sudden, they're driving a brand-new car when they were driving an old banger. (P1)

Two participants discussed how sporting organisations can dictate how athletes should behave in order to represent a particular image.

There's...there's a couple which you can read about and...and the governing body of golf, the R&A and PGA...there's a couple of times where players get...forced medical leave so they might, you know what I mean, just like a footballer pulling his hamstring...might be medical absence and they'll say he's hurt his back or something, when they've been told to take a leave of rest from the sport because they don't want what has actually happened to come out in the papers. And...and, when you actually dig a little deeper and read about it, there is players out there...whether it is performance-enhancing drugs or it's cocaine or weed or whatever it may be, there is...what breaks the rules of a professional does happen in golf, but you just don't see it. It's not there to be, you know what I mean, to the public eye. (P1)

In addition, participant six explained how members of sporting organisations can influence the way in which athletes act during interviews with the media:

So, you do see people being asked to, you know, "I'm going to do an interview, can you say certain things or do certain things". (P6)

Two participants talked about how the media can influence athlete image. When discussing risk-taking behaviour, participant two stated:

... we know don't we from stuff in the media that footballers tend to do that sort of stuff. (P2)

Furthermore, participant six explained how athletes can use social media to portray a particular type of image to the general population:

Because, people will try and get fans or whatnot by, you know, doing social media stunts or whatnot, that could have a negative light. (P6)

Yeah, so, in sport I could...I could play a safe game and try and grind people down and, you know, play it kind of safe. But I'd much rather have a stand-up exchange, exchange fists, exchange knees, and then, until one of us goes down really. Even though I could probably beat the person if I used a better game plan. But I think getting a spectacular finish is a lot better than winning a boring grind. I think the risk here is if you get a spectacular finish it looks a lot better on you. You're a lot more marketable. You can put it on Instagram and show off, and that kind of stuff. And if you get a boring decision you can't really do that. (P6)

Theme 3: Athlete Risky Behaviours

Nine of the eleven participants conferred about occasions when they had been involved in risky behaviours. Within this theme, five subthemes were identified (see Figure 6.3). All of these nine participants discussed occasions of substance abuse, six participants talked about their involvement in financially risky situations, six participants mentioned their involvement in dangerous activities which could put their health and safety at risk, five participants discussed sexually risky situations they have been involved in, and four participants talked about their involvement in situations which included violence.

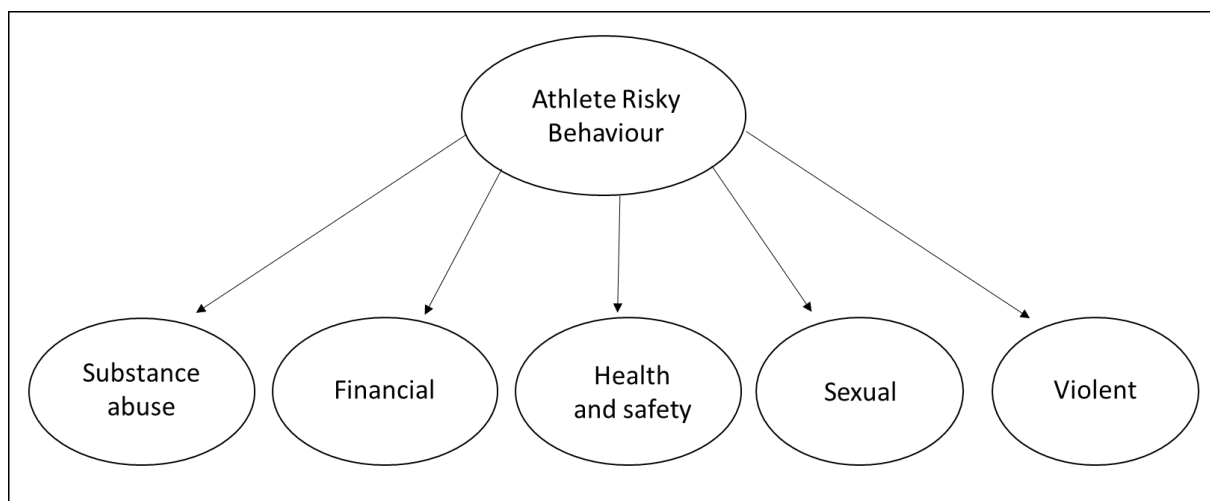


Figure 6.3 Main theme “Athlete Risky Behaviour” with subthemes.

Substance abuse. In this subtheme participants relayed occasions in which they had been involved in substance abuse. All of the nine participants that discussed athlete risky behaviour discussed substance abuse. Six of these participants stated that they had engaged in particularly excessive alcohol use, and eight these participants detailed that they had been involved in recreational drug use or the use of performance enhancing drugs. Participant three talked about his regular and heavy alcohol use during his time as an active elite athlete:

Yeah, yeah. I was just, I was just getting pissed all the time, like 4 times, 4 [or] 5 times a week, just hammered... like next level hammered. I've just, I've got loads of stories. (P3)

Participant seven detailed an occasion when he was involved in heavy drug and alcohol use, which resulted in him being involved in a particularly high-risk incident:

I got...this one time...this one time I went out with a friend and we just did a stupid amount of cocaine and drink, and I blacked out as I left the club in Leeds. I have images and I...I...I [laughs]. Right, so this is what happened. The last thing I remember is being in the club...and the next day I was working on the door in Leeds. This was at a fancy cocktail bar when I was working there...and...a guy came past that we know, he comes by like every day, like we talk to him, me and my friends. And, he was like 'you were crazy. You were crazy last night' and I was like 'what?', 'yeah, yeah, I was in McDonald's when you came in. Then you started like, taking the piss out of this other doorman'. I was like 'what are you talking about?', and, apparently, I'd had like a full-blown conversation with him, made fun of this other guy, and like skipped away. And, then all I remember was opening my car door, being on the motorway, and then being in my bed. That's all I remember, and that was ridiculous. And, I put it down to the cocaine that was keeping me on...keeping me on...keeping me on track. But, I also, like, this wasn't even long ago, this was like a couple of months ago. I got...I took a couple of tabs of LSD and just wanted a McDonald's, so I just drove to McDonald's. You know what I mean? Just like...like, I...oh my God. Like a...like a Hunter S. Thompson. Like...like a...these are the kind of people... like, I enjoy like...I think that plays into my neuroticism of like I don't...I don't...I was just...I was like a weight-lifting Hunter S. Thompson driving on the motorway, high on LSD, smoking a spliff [laughs]. (P7)

Participant nine outlined that substance abuse can be heightened due to the social side of athletic involvement:

... alcohol's, yeah, it's a sociable sport so obviously there is a lot of team-based activities based around alcohol and stuff. Drug-use is very prevalent as well. (P9)

Financial risk. In this subtheme, participants discussed occasions of financial risk, including gambling, risky financial investments, and instrumental crimes with a financial motive. Six of

the nine participants that discussed athlete risky behaviour talked about incidences in which they had taken financial risks.

Participant two discussed crimes which he had committed which had financial motives:

... buying and selling stolen goods and stolen cars and stuff like that. I was involved in one point at, er, in stolen cars that we'd then strip down for parts which was called, commonly known as "ringing", so we either changed the plates on a vehicle and sell it on and somebody got ripped off, or you'd get a stolen car and then buy, strip it down and sell all the parts off it... Minor drug dealing type offences, erm, not anything, kind of like what would be classed as like Class C drugs rather than anything like serious. (P2)

Participant three discussed his engagement in gambling, but that he now avoids this due to his addictive personality:

Gambling. I try to avoid gambling. Just because of my personality. Just because, like I said earlier, I don't, [friend's name]'s known me for a long time, you know, he's seen me win... like a whole term's worth of rent in a day before. [Laughs] Like a grand and a half, do you know, just from about 50 quid and it's just fun, but the thing is you're never, I find that you're never up or down. You're always pretty much the same. Or, well I am anyway. I'm probably a little more up than I am down, which is good, but do you know, like you go in, you put 20 quid in, you lose 100 quid and blah, blah, blah, do you know, and then you have a couple of big wins. Just, yeah now I, just yeah, I don't really do it anymore. It's not my thing. I like other people gambling though. I'd give somebody else 20 quid or 50 quid and watch them do it. Yeah, yeah, and I don't mind that. Yeah, yeah, I just don't, I just know what I'm like, like I'll just be like "more!", like [laughs]. I don't know where the limit is, so. (P3)

Participant eleven also discussed his experience with gambling, stating that the behaviour developed when he was younger and before elite athletic involvement:

... I've gambled. Interesting, gambling happened when I was 17 though. I, kind of, became addicted to gambling, but, but that wasn't through sport, that was at school. You know, we were playing poker at school for like pennies and 5ps in the common room and then, all of a sudden, it turned into online poker and spending hours and hours and hours a week playing. (P11)

Participant three revealed his involvement in risky financial investment:

I don't think gambling is a big deal. Like I've, don't get me wrong I've, I've bet a couple hundred quid, or I've put a fair bit of money on, erm, what's it called? Erm, cryptocurrency recently. Yeah, that was risky. Erm, because it's so volatile, like, but again it's not, it's quite a lot of money but it's not anything that I'm not bothered, I'm not arsed about losing it... that much. I am, but like it's not gonna, you know, I'm not gonna get that many sleepless nights over it. So, I'm not that stupid. (P3)

Health and Safety risk. In this subtheme participants described occasions when they had knowingly put themselves at risk through activities such as risky driving, extreme sports, and other potentially risky situations which could cause substantial and direct physical harm. Five of the eight participants that discussed instances where their health and safety was at risk talked about their involvement in dangerous driving, including driving at excessive speeds and driving under the influence of substances.

I used to, at the same sort of time I was boxing I always used to ride motor cross bikes, erm, I've got a motor bike now, like riding it kind of, again, comes to kind of illegality, like going excessive speed, beyond the speed limit. Erm, so things, an example is even now, very recently I've had my motorbike on the motorway, it's quite clear and I wanted, it was a new bike so I wanted to test it to the full, kind of, parameter so I was going way, way over the speed limit to the point where the bike was almost vibrating and, you know, I didn't really have control and I was just, kind of, laughing to myself in my helmet because if something would've gone wrong like the tyre popped or I lost control, I would definitely be dead. But rather than, it was something that I thought about after rather than be scared in that situation I was actually laughing, which is totally not normal, is it? (P2)

Participant three relayed his propensity to driving under the influence of alcohol:

Yeah, like, for example, like I think the last time I drunk-drive in England I think I stopped after that because I was like, for ages I was like "oh, I'm fine" but I used to do it, not a lot, but a bit. But I'd make sure there was nobody on the road. If there, I saw any cars on the road I would pull over usually or I'd drive really slow. (P3)

Participant six also explained his tendency to drive in a high-risk manner:

Yeah, exactly. Like, you...you...I'd say I take a lot of risks day to day and I don't think about it, you know? Like when I drive. I...I don't really...I go...you know... when you drive you don't really think about driving. You go into it. But I actually drive at a higher speed than most people. I take more adventurous turns and whatnot [laughs] than the...than the average person, you know? I've even been on a few speed awareness courses and I still haven't changed; you know? [laughs]. (P6)

Also, participant ten did not state that he had engaged in risky driving behaviours himself but expressed:

I've definitely got in a car with someone who's been over the limit. That's definitely one. But then, looking back I think "why the hell did I do that?". Obviously at the time, I was

probably pretty drunk, so, yeah. Obviously, nothing bad happened, which was good, but I don't think that will happen again, or I'd like to think it doesn't happen again. (P10)

Two of the eight participants stated that they had engaged in extreme sports, usually without suitable training or safety precautions. For example, participant eight recalled:

Yeah, I mean...on holiday in France I...made the stupid mistake of...going down a red slope in the ski resort...just on my back...which in hindsight is very dangerous, because it was quite long, I couldn't see, I nearly crashed... (P8)

Additionally, two of the eight participants expressed that they had been involved in risky behaviours within the sporting context to facilitate sporting performance. Participant six explained:

So, I'd say, that way I'm quite...I take risks. I'd say as well, when it comes to like...even just general stuff. You know, like...like supplement taking and whatnot...weight cutting. So, I'd say most combat sports put themselves at risk, you know? We cut a large percentage of our body weight. I mean, my last fight I cut like 8 kilos, and I'm, what, about 90 kilos, so, what's that? 80% of my body weight. So, I...it's a lot to cut, right? To then go and fight someone in a cage and you've then got 36 hours to rehydrate and put that weight back on. So that's very risky. It's very risky on your kidneys and whatnot...on your body. It takes a toll, but I still do it because I want to be heavier than that person when I go in there. I want any little advantage that I can have. Because that's what this game is. If you've got little advantages...1 or 2 percent make overall huge gains. (P6)

Participant nine detailed how the prevalence of on-field risks has reduced during his time as an elite rugby player due to changing regulations:

Yeah, the physicality, I suppose in terms of how you use your body around the field, you probably do things that you shouldn't do within games, but your coaches might want you to play a certain way. I think that's quite changed, I think back in the day, like, they're not, they're just regulating all the tackle incidents and high tackles and stuff like that, but back in the day it would be, yeah risky in how you cleared out some rucks or some tackles and stuff, and get people on the floor, but now it's, kind of, changed. (P9)

Sexual risk. In this subtheme participants outlined risky sexual encounters that they had experienced. Four of the five participants that discussed risky sexual experiences had engaged in unprotected sex.

... unprotected sex. I think that's one that comes up a lot. It's one that you know you shouldn't do but you're kind of in this mentality, like, 'I'm a cool person, they seem like a cool person', and you take that risk. (P6)

... yeah, unprotected sex which you, you shouldn't do really but sometimes needs must. (P10)

Two of the participants expressed that they had engaged in periods of sexual promiscuity. Although promiscuity alone could be argued as not risky, the participants claimed that these multiple sexual encounters would often involve unprotected sex. Participant two explained:

... we're talking about when I was much younger but, erm, risky sexual behaviours so, again, being quite, erm, promiscuous and happy to have, erm, short sexual encounters or risky sexual encounters where perhaps there's no protection. (P2)

Participant three explained that he had knowingly been sexually involved with a married woman for a short period:

Yeah, I guess, I, I was with a, oh well I won't say I was with her, for a few months when I got to Hong Kong this married woman. She was a couple of years older than me. But yeah, I guess she was unhappy, and I was whatever. (P3)

Violent behaviour. In this subtheme participants discussed occasions in which they had been involved in violent acts. All four participants that mentioned violent behaviour referred to their involvement in fights.

I think probably fighting would be the most common. I used to get into fights quite a lot. So, on a night out I'd be happy to get into a fight. It wouldn't be a problem, it would actually be, like a, just a funny story associated with going out. So, I think yeah drinking excessively and getting into fights was probably the most frequent. (P2)

Two of the participants stated that they had been arrested as a result of fighting.

Yeah, anyway... and yeah, we drank a lot and then he was, he, he gave me a load of shit in the middle of the street, and I kind of went for him a little bit. That was the day I was wearing a skirt and a vest, and I got put in a fucking cell wearing the skirt. (P3)

If I get angry... but, like, I've been in fights, I've been in street fights... I've been... I've been arrested before with a street fight... (P7)

Participant seven progressed to justify some of his violent and aggressive behaviour in a way which was controlled and benefitted others in particular situations:

... like I'd never really, like, hit someone but if I ever have to deal with a conversation like...the amount of people I have choked unconscious, I've like, I've lost count. But...the amount of people that I've hit I could probably count, you see...and like, I know that's not good, but (laughs)...it's when the situation has arisen, I've handled it the best I can, and that's not through, like, physicality of, like, putting my fists in somebody's face, do you see what I mean? Like, for instance, I've got a story of when...I went to...I went to Paris with this guy that I'm working for, and...he went into a club and I was just waiting outside. I was waiting with one of the drivers or whatever. And, there was this guy that got thrown out and he turned around and slapped the bouncer, and...like, the guy ran away, and reading the situation...using my own perception, I've seen this many, many times before, and I knew this guy was gonna come back. I was just saying that to myself. This guy hasn't learnt his lesson, he's gonna come back. I know that sounds bad but being in this situation for so long...you... you can just...and the guy did come back. He started kicking off...he started, like, making the women around uncomfortable and stuff like that, and, like, trying to get over the barriers and stuff. So, the situation was going to get to a point where one of the doormen would, like, hit him or something like that, or somebody's gonna get hurt. So, all I did was...I was in the situation, so I just went behind him, choked him unconscious, put him in the street, like, helped him...helped him come around by putting his feet in the air, whatever. Because like, I...I...I don't lose my cool in those situations. And then...and then he was...he was alright, just like 'uuuuhhh!', and then ran away. He didn't realise what happened, but he was alright, and he just ran away and didn't come back. Like, I can control myself in those situations... (P7)

Participant eight explained an incident in which he had a desire to react in an aggressive and violent way to another person:

A more recent occasion was on a night out when a group were dancing around in a nightclub bumping into people. I was stood at the bar getting a drink for about 10 minutes...and when I turned around one of the guys bumped straight into me and my drink went everywhere...all over me. My first instinct was to just grab the guy by the throat. They ended up getting me another drink...but, yeah that could be described as risky because I had no idea what this other guy could do. He could fight back, and we could've got in a fight, and we could've been hurt or even arrested. (P8)

Theme 4: Factors which Increase Athlete Risky Behaviour

All eleven participants discussed their views and experiences regarding the influences of athlete risky behaviour. Within this theme, two subthemes were identified (see Figure 6.4). In all cases, participants discussed how involvement in sport can increase risky behaviour in athletes, including peer influence, sport culture, athlete success, and the nature of their sport.

Eight of the participants discussed individual differences in athletes which can result in an elevated level of risky behaviour.

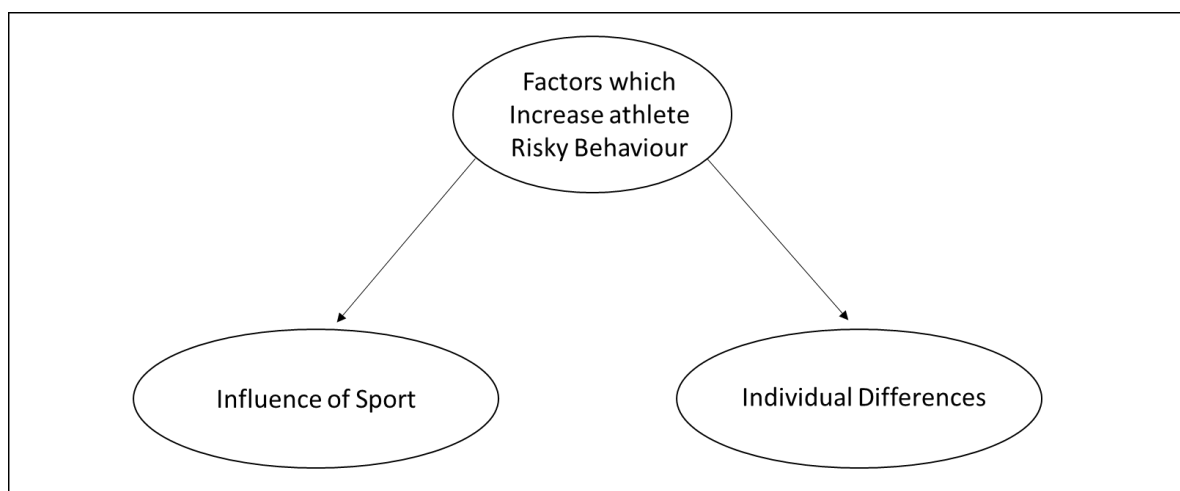


Figure 6.4 Main theme “Factors which Increase Athlete Risky Behaviour” with subthemes.

Influence of Sport. In this subtheme, the participants discussed how various aspects related to athletic involvement can increase risky behaviours. Ten of the participants expressed that peer influence within the sporting context can influence risky behaviours. Participant six recalled an occasion in which he succumbed to group pressures and conformed as a way of proving himself to the group:

So, we used to hangout and whatnot...and obviously their behaviours...and my behaviours, it's like conformity, right? You've gotta try and fit in with the group to be in the group...because if you're the outsider you're never going to get in that group. So, I'd say my risk behaviours definitely increased. There has been certain times when I've been like 'oh, I shouldn't be doing this but', you know, everyone's doing it, you know? You conform to that kind of stuff. So, I'll give you an example because...I don't like this example, but I'll do it for this study. So...the boys all fought, right? We've all fought. This is a few days after and we're like 'we wanna celebrate'. So, we went for some food, turns into drinks, drinks turn into more drinks, and you know how it goes on. And we end up in town...town centre, and one of our friends sees this guy that he thinks is bullying another guy and...who knows if he was, you know...but he goes and gets involved. And then, we are all drunk, so no one knows what's going on. One thing leads to another and there's like a mass brawl in town centre, right? Now, normally if this was years ago, I'd just try and break the situation up, you know, not even get involved or let them do their thing and stay back. But, because now...I'm in this group with guys that, like, they don't really have the career options I've got or the potential I've got, but they're, like, they just wanna...they just wanna fight, they're just fighters. I'm now in a big brawl just helping these people that...I'm good mates with, and I'm taking a big risk here, you know? And then the police eventually arrested us. Luckily it was an affray, so, because we were a party, they couldn't actually charge anyone. But...on my career, that could've had

detrimental effects and I've literally put it all on the line to help people that I've only known for a couple of years because we're in a big situation here. Now, I could've easily tried to step in and stop it before it happened. I could've took a step back and let everyone else do it...but in that situation it's more engrained than ever to take that risk and get involved and...help friends, I guess...to seem as part of the group, I guess, yeah, so. So yeah, I definitely take more risks and risks in that kind of...group atmosphere. And, you see it a lot with fights and stuff. (P6)

Participant ten affirmed that peers can also have a more direct influence on athlete risky behaviours:

No, there's probably more chance of being egged on to do something... if there's a group of people doing it rather than if it's just yourself. (P10)

Six of the participants expressed that the engrained culture of sport can facilitate increased risky behaviours. Participant two referred to the masculine nature of many male-dominated sports:

... I think that sport generally that's dominated by males has this kind of hyper-masculine behaviours and risky behaviours associated with it. (P2)

Participant two also referred to risky behaviours as a team after competing in sports:

So, after the game they'd all be extreme, you know, drinking to, drinking to excess, involved in risky sexual behaviours and, erm, getting into fights and all that sort of stuff, so. (P2)

Additionally, participant six explained:

There's a lot of people taking chances... because they've just, either got the confidence to do it, or don't really care about the ending... or it's just engrained as a culture. (P6)

Participant nine shared his experiences, from athlete to sport coach, with regards to how the athlete culture has evolved over time due to the developing technologies of the modern world:

... if I was to compare myself as, as, looking from a coaching point myself 10 years ago against the guys who I'm currently looking who currently would've been the same age as me 10 years ago, what they do is ridiculous, like, it's not even, I wouldn't even have known about some of the stuff back then. I think that's quite, maybe, common across the board. (P9)

... like video recording, tag team, and all that sort of stuff wasn't really, wasn't, it's wasn't really a thing. Yeah, yeah, I definitely think it's changed with the times, yeah. And the internet, how accessible everything is. (P9)

Six participants discussed how success within sports can increase risky behaviour due to factors including increased status, power, money, and attention. Participant nine explained how attention from the general population can lead to increased risky behaviour:

... yeah, it depends obviously, depending on the group, but it's probably increased in terms of, as you said, going back to that alpha male group of well-built, tall, generally big guys, and most of the time, like, good-looking guys as well. Not all of them obviously but going out, and you're going to stick out like a sore thumb and you're going to get attention, so it's again, how you... once you're used to managing situations like that, if it's all new it's hard, it's a bit different, you're kind of willing to, I suppose, engage in risky behaviour a bit more. It just goes down to, I suppose, experiences and stuff like that. (P9)

Additionally, participant eleven stated:

... I wouldn't use the term risky. But, for me, it would be, kind of, vulnerabilities, so allowing success, fame, position, money to influence your behaviour and therefore you get swept along with it. (P11)

Three participants talked about the effects of the nature of sports on risky behaviour. Two of these participants described incidents when boredom, due to the amount of downtime in sports, had resulted in them engaging in risky behaviours.

The gambling we would've, we would've, we used to, we'd get bored before training. You'd have long breaks and stuff, you'd probably just go to the bookies the odd time in a group of 3 or 4 and, like, just kind of, bet away aimlessly, like, just because you're bored basically. There's a lot of downtime in professional sports so, different people fill that void in different ways. (P9)

Participant three expressed that within his sport, the penalties for violence during games were lenient and so players would fight because the penalties did not serve as a deterrent:

It was always, "who's the hardest?". I was at that age though where, it was quite, not important to be hard but you wanted to be hard. So, like... you were allowed to fight in that. You had to sit out for 10 minutes and then you could go back on, so. (P3)

Individual Differences. In this subtheme the participants discussed the individual differences they believed the influence their risky behaviour. Seven of the participants talked about aspects of their personality which had elevated their risky behaviour. Participant one explained:

... you've sort of gotta be driven and have that, sort of, desire to win, so as... as a professional you already have quite an addictive and excessive personality anyway just to be driven in sport... or, like I mentioned before, whether... you, you know what I mean, run a multimillion pound company, whatever it is, you've gotta have those sort of personality traits within you anyway... and it's how you control them. So, yeah... it has had... it would've had... or it has had an effect because them traits are in you... and... whether you realise that it's having an effect on what you class as risky behaviour... it does... quite simply. (P1)

Furthermore, participant seven talked about his sensation-seeking tendencies as a drive to engage in risky behaviours:

Yeah, I have an extremely addictive personality. Like, to...to a degree where it's not just...it's not just substances or whatever, it's like emotions. It's feelings. It's...it's everything. Like, I'll always search for the next, like, adrenaline...like an adrenaline junkie, but, in like every sense of the word. It's like that...like people say like 'oh I don't wanna do that because I'll be anxious'? My drive to, like, get the high overcomes...overcomes that, like, 'oh I don't wanna do this'. It might stop me for a little bit...but then I eventually...I eventually say, 'fuck it!', I fucking put my dick in my hand and then I just go for it, so. (P7)

Three of the participants attributed increased risky behaviours to heightened confidence levels. For example, participant two explained that his confidence levels resulted in criminal involvement:

I also think the confidence, a by-product of the confidence it gave in terms of being, feeling equipped to be able to fight or handle situations definitely led me to being involved in certain criminal activities that I wouldn't have otherwise been part of. It also brought me into contact with individuals that I wouldn't have been part of, I wouldn't have met or come across had it not been for me being associated with boxing and... an identity in those that come and watch it that goes with that. And also I'd say confidence in terms of like, sexual situations with women, I think it gives you the confidence to be... also because in, like, a small town where I was fighting, I was known as being, like, the main fighter in the gym and so with that attracted certain, like, attention from criminal types that wanted to be associated with you, and with women that wanted to be associated with you. (P2)

Additionally, participant eight made direct links between confidence levels and risk-taking:

Like I said before, it gives you more confidence, and I think risk taking is heavily related to confidence. So, I think in that [respect], yeah. There are certain risks I would've taken anyway, but there are certain other risks...you know, if I get into trouble in the streets I'm willing to take the risk and fight someone...because of my confidence. (P8)

... what it boils down to is, is I'm quite confident that if I get into trouble, regardless of whether it's having to talk out of it or fight out of it, I'll be able to get away with it. So, I think that has an aspect on me taking risks. (P8)

Three of the participants discussed the effect of socioeconomic background and upbringing as factors which influenced their risky behaviours. Participant one described his risky behaviours as acts of rebellion towards his parents:

I used to think it was, sort of, the element of me, sort of, fighting back against my parents, in the fact of, you know what I mean, 'don't go out, don't drink too much, you shouldn't be gambling, promise me you're not taking any drugs, why are you smoking?', all this kind of stuff. And, it was probably, maybe, a little bit of rebellion more than anything. (P1)

Participant two expressed:

I think, this is making a distinction between what I would have engaged in anyway because I was in quite a poor, high crime rate area and I was definitely involved in minor criminality... before being part of my sporting boxing club. Erm, so it's hard to fully distinguish but I think the person the boxing club made me, the identity I got from that led to me becoming in certain criminalities. (P2)

Theme 5: Factors which Inhibit Athlete Risky Behaviour

Nine of the eleven participants outlined factors which have prevented or reduced their involvement in risky behaviours. Within this theme, four subthemes were identified (see Figure 6.5). Five of the participants referred to issues surrounding age and level of responsibilities, four participants talked about the effect of various positive role models, four participants discussed previous experiences of the consequences of risky behaviours, and three participants talked about the influences of risky behaviour management.

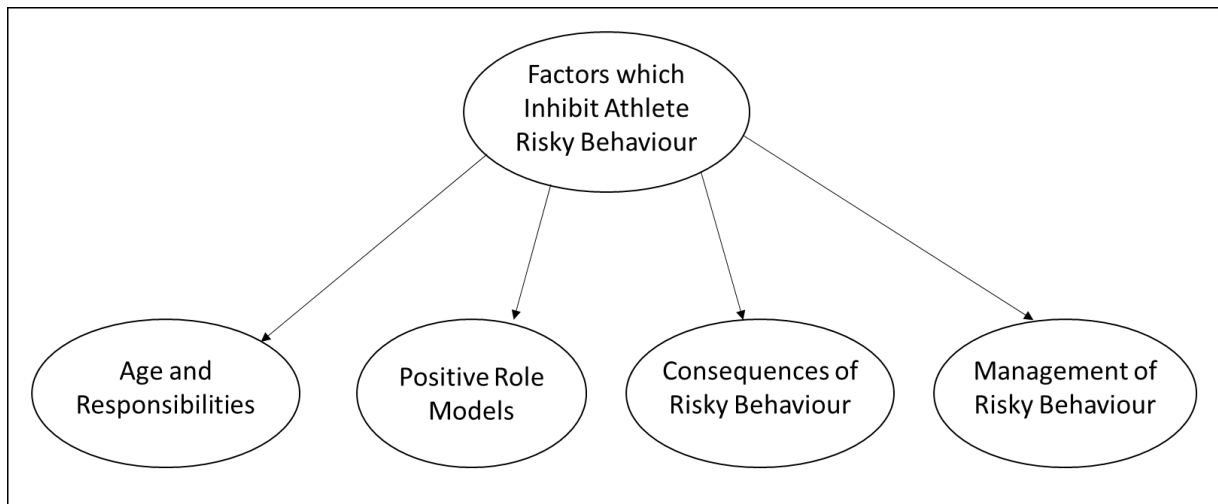


Figure 6.5 Main theme “Factors which Inhibit Athlete Risky Behaviour” with subthemes.

Age and Responsibilities. In this subtheme, participants discussed the effects of age and increased responsibilities on risky behaviour. Four of the participants expressed the impact of age, with all but one participant explaining that their risky behaviour had decreased with age and maturation. For example, participant two declared:

Yeah, I think definitely age. I think as you mature more, erm, also I think probably a more complex association with, than just, than just age itself, is that the, because I think it's learnt, definitely in me I'd say it's learnt, that the more experiences you have which come over, naturally over time, are kind of a greater number of indicators to say “okay, is this activity worth it? Is this behaviour worth doing? What's the cost-benefit associated with it?”. (P2)

I'm not that bothered now, I've got nothing to prove to anybody, so. I'm 28 years old. I'm stupid enough and old enough now to [laughs] not give a shit about what anybody thinks. (P3)

Conversely, participant six claimed that some of his risky sexual behaviours have actually increased with age:

And before, when I was younger, I think I was more scared of the potential risk of what could happen...so I was very careful and using protection. But, in this day and age, now, probably worse than ever, I'm a bit more lax, a bit more laissez-faire, you know? [Laughs] So, that's definitely a risk I take. (P6)

Two of the participants described how increased responsibilities have resulted in reduced involvement in risky behaviour.

I've sort of grown up a little bit, in the fact of, I know that I shouldn't be wasting...wasting my money on the stuff that I was doing, because everything that...I've classed as risky so far costs money...and the money which I look back and I think I could've saved by not doing all that stuff...but then I also think I wouldn't have had the life experiences I've had so far without doing it, as well. So, I've had those experiences and now I'm on the other side where I'm thinking 'right, I need to save now for...whether it be a mortgage or a holiday or something, and go do a different type of experience'...and sort of moving on with my life from being...what I would class at the time as being quite childish, in the fact of what I was doing. (P1)

Positive Role Models. In this subtheme, participant acknowledged individuals who had been positive role models for them with regards to influencing their risky behaviour. Three of the participants attributed reduced risky behaviour to their parents and families.

Like my dad used to be in the police and was a doorman and stuff so he's kind of drummed all that into me, you know that "if they hit somebody and they fall in the wrong place and ruh, ruh, ruh, ruh, ruh". (P3)

Education, family values, all that sort of stuff. I mean, you know, once you have an idea about what's right and what's wrong it's very black and white. (P9)

Yeah, and, you know, from time to time I will have joined in in certain aspects and behaviours and everything like that, but only if I felt like it. Erm, generally speaking I would... I thank my parents that they taught me about peer pressure very early, so I probably didn't bow into that. (P11)

One participant expressed the positive influence of his coach both inside and outside of sport.

Yeah, yeah, so you wouldn't, you tend to keep away from them because you have people that you, like, look up to, like, your coaches are a big factor. They, erm, they keep on top of how you're doing outside of the gym, not only inside. So, you tend to keep away from that stuff and focus on what you want to achieve. (P4)

Consequences of Risky Behaviour. In this subtheme, participants discussed how previous experiences and understanding of the consequences of behaviours have prevented risky behaviours. Two of the participants expressed that previous experiences have deterred them from engaging in future risky behaviours.

... whereas now as I've got older I definitely do that less because I think I think more before and I just, you know, consequences associated with getting involved in those situations have taught me that the, the cost is greater than the benefit, so. (P2)

... previous experiences, or trouble caused from that risky behaviour in the past. Stuff like that. (P10)

Two of the participants outlined potential consequences which would prevent them from being involved in particular risky behaviours.

Like, I would never do anything that would hurt anybody. Do you know, I'd never, so I was talking about gambling before, it's fun because it is my money. Do you know, I'd never go and do something stupid or, you know, spend somebody else's, or steal something for that. Do you know, I'm not really arsed for that sort of stuff. Nothing, like you said, illegal... (P3)

Yeah, I do, yeah. I definitely draw the line at... I definitely draw the line at... putting... putting other people in danger... I... I... I wouldn't. That's where I would draw the line in risk taking. But, as for myself...I do some, not stupid... yeah, some stupid shit, yeah... sometimes [laughs]. Physically... physically and mentally. I've no doubt there's gonna be questions. But, yeah, yeah, I'd definitely, yeah. I draw the line at other people, I wouldn't put other people in danger. Saying that... saying that... no, yeah... it's like I wouldn't drive with someone else in the car with me, but I've definitely driven under the influence of substances... before. (P7)

Management of Risky Behaviour. In this subtheme, participants discussed their experiences of effective methods of controlling occurrences of risky behaviours. Two of the participants expressed that they had learned to actively manage their impulses to engage in risky behaviours. Participant two explained that he removed himself from environments which influenced him to engage in criminal behaviours:

Yeah, I think it's learnt behaviour and therefore you probably unlearn it. And also, I've taken myself... out of most of the social groups that I would've been part of... so criminal associates and even sporting associates associated with my boxing club, I'm not really involved with them anymore, so taking myself out of the environment has allowed me to... reduce how often I do those things. (P2)

In addition, when discussing gambling behaviours, participant nine explained:

So, it's obviously a risky enough behaviour, but, once you're, once I suppose you have it under control, it's your, I suppose once you're able to control your urges or whatever then you can manage it, how risky it can be at times, I think. (P9)

One participant explained that amendments and additions to sporting regulations have effectively changed athlete on-field risky behaviours.

Yeah, it's a bit more regulated so, that's where I think... even, like, behaviours of the referee, that's like really different to how they try and regulate it an awful lot more in rugby than they would do in other sports to a certain point. (P9)

6.5 Discussion

The aim of the study was to develop a further understanding of the impact of athletic involvement and the factors which can contribute towards athlete risky behaviours. Five key themes were identified from the qualitative semi-structured interviews: (a) impact of athletic involvement, (b) athlete identities, (c) athlete risky behaviour, (d) factors which increase athlete risky behaviour, and (e) factors which inhibit athlete risky behaviour. Each theme comprised of a number of subthemes, which are discussed in their respective sections below, with reference to previous research.

6.5.1 Theme One: Impact of Athletic Involvement

This theme was observed in the interviews of all eleven participants. Four subthemes were identified: benefits of athletic involvement, sporting culture and environment, differences between elite athletes and non-athletes, and differences between sports.

6.5.1.1 Benefits of Athletic Involvement

Within the subtheme of benefits of athletic involvement, all of the participants explained that they gained enjoyment, with many referring to the social side of sport, supporting previous literature (Agans, Johnson & Lerner, 2017; Simpkins, 2015; Wendling et al., 2018). Eight of the participants expressed that sport had increased their purpose and drive to succeed, resulting in higher work-ethic and ability to work towards achieving their goals. This finding is similar to the findings of previous research which found that athletic involvement increased academic achievement (Marsh & Kleitman, 2003; Miller, Melnick, Barnes, Farrell & Sabo, 2005; Schafer & Armer, 1968; Veliz & Shakib, 2014; Yeung, 2013). Four participants highlighted that sport had increased their confidence, both on- and off-field, consistent with previous literature which reported improved self-esteem with athletic involvement (Phillips & Schafer, 1971).

There are a number of theories for sport participation and beneficial outcomes based on sociological and psychological factors. Three approaches to participation in sport are health motivations, the self-determination theory, and the participation theory (relating stages of motivation: awareness, attraction, attachment, and allegiance) (Grima, Grima, Thalassinou, Seychell & Spiteri, 2017). From a sociological standpoint, the social network of sport is imperative, and common characteristics with peers can be a key component in joint sport participation. If peers are more active and place value in sport, there is an increased likelihood of an individual engaging in sport. If peers have lack of value in sport then they can also discourage participation (Becker, 1974). It can lead to higher enjoyment in sport participation when engaging in a shared interest with peers, which was identified in the findings of the present study. Additionally, education is a key influence regarding participation in sports. Higher levels of education and ease of access to sport facilities can increase individual awareness of the benefits of sport participation, such as the health and social benefits (Breuer, & Wicker, 2008; Downward, 2007; Humphreys & Ruseski, 2007; Lera-López & Rapún-Gárate, 2011). It is possible that this effect can also be utilised to explain findings of improved work-ethic and drive in participants in the current study.

From a psychological standpoint, there are a number of motivations behind an individual's decision to engage in sports, with preferences and motivations consistently changing. The motivations can include health and fitness benefits, recreation, enjoyment, relaxation, physical appearance, social aspects, and competition (Davey, Fitzpatrick, Garland & Kilgour, 2009; Fridberg, 2010). Motivational factors can vary from youth sport into adulthood. Physical competence, skills, enjoyment, competition, and social acceptance can influence young people to engage in sports, however motivations, experiences and life constraints can change in adulthood (Lim, Warner, Dixon, Berg, Kim & Newhouse-Bailey, 2011). The majority of these motivational factors to participating in sports have been reported by the current sample, which implies that not only can these factors influence engagement in sport, but they can also be beneficial products of engaging in sport.

6.5.1.2 Sporting Culture and Environment

Eight of the participants discussed their experiences within the sporting culture and environment of their sport. These experiences included group pressures and conformity. Participants expressed that they had experienced pressure from their teammates to conform to

the culture of the sport, consistent with previous research (e.g. Coakley, 2007; Crosset, 1999; Messner & Sabo, 1994; Nelson, 1994; Sabo, 2004; Sabo & Runfola, 1980). However, some of the participants explained that they had also put pressure on themselves to conform to team norms, despite no direct peer pressure from teammates. This finding supports the work of Hughes and Coakley (1991) who state that collegiate athletes tend to regard over-conformity, through involvement in behaviours which satisfy coaches and teammates, as necessary for success and acceptance within the team. So, despite no direct pressure from others, athletes may still deem conformity to social norms as a requirement. Five of the participants discussed the masculinity within the environment and how this encouraged team members to portray masculine characteristics and behaviours. There was also reference to the 'lad banter' element of the environment, which was compared by some participants to bullying. Again, these findings are consistent with previous research which explains how the masculine environment can impact team members to act in particular way and conform (e.g. Crosset, 1999; Davis & Smith, 2009; Messner & Sabo, 1994).

The results could be explained using the conformity theory. Kelman (1958) identified three different types of conformity: compliance or group acceptance, internalisation or genuine acceptance of group norms, and identification or group membership, all of which were revealed in the results of the current study. Conformity is defined as an individual adjusting their attitudes, views, and behaviours to suit group standards, and this can occur within sports teams and clubs. Particularly affected can be those with lower certainty and intellectuality, and those who are frustrated and authoritarian with a lower social group status (Vučković, Gadžić, Sekulić & Kukrić, 2012). Positive associations have been found between conformity and altruistic value orientation, and this has been explained by an individuals' desire to be accepted in the group and to have a higher social status in the group. It has been found that some athletes can turn to doping behaviours after witnessing other athletes engaging in the behaviour (Mendoza, 2002). Athletes can also engage in positive conformity behaviours in which, for instance, an athlete can follow the training rules of their coach after witnessing success in their relationships with other, higher level, athletes (Jowett & Cockerill, 2003). Given that the majority of the sample in the current study involved athletes from masculine team sports, the conformity theory can offer an explanation as to why most of the sample had reported experiencing group pressure and conformity.

6.5.1.3 Differences between Athletes and Non-Athletes

Five of the participants talked about the differences between athletes and the general population, including heightened confidence and self-esteem when compared with the general population, consistent with Phillips and Shafer (1971), with three participants expressing increased confidence in social confrontation. These three participants were all combat fighters who explained that their ability to fight within sports had influenced their confidence and willingness to fight when faced with confrontational and violent situations. This supports research which has reported that violent sports had influenced athletes to engage in violent behaviour outside of sport (Coakley, 2007). Additionally, the findings support research which found that success within sports that is attributed to cultural norms surrounding aggression, power, and dominance (Davis & Smith, 2009) can result in violent behaviours outside of sport (Gage, 2008).

Five participants expressed levels of risk taking in athletes when compared to the general population. The majority of participants expressed that athletes were more likely to engage in risk taking behaviours, consistent with the findings from Study Two of the current thesis (see section 5.4.1). However, one participant was conflicted in his response, stating that risk can occur in the sporting context but believed that perceived heightened levels of risk taking in the athlete population may be attributed to athletes being more open than the general population. This finding could be explained by literature which states that athletes tend to engage in and conform with behaviours which satisfy teammates to be successful and receive acceptance (Hughes & Coakley, 1991). In this case, it may be that athletes discuss their involvement in risk taking more openly than the general population to gain approval from teammates.

Three of the participants explained that athletes tend to be more competitive and have a higher drive to succeed than the general population. Again, these findings share similarities with literature which states that athletic involvement can result in higher academic achievement (e.g. Marsh & Kleitman, 2003; Miller, Melnick, Barnes, Farrell & Sabo, 2005; Schafer & Armer, 1968; Veliz & Shakib, 2014; Yeung, 2013). Although the previous research has focused on academic achievement within adolescent athletes, it may be the case that this high achievement continues through into adult life, manifesting as a drive to succeed in sports and other aspects of life.

One participant discussed that the aggression and hyper-masculinity which can be present within the sporting environment would not typically be experienced within the general population. This supports research which suggests that the competitive nature of sport can result in aggressive behaviours (Nucci & Kim, 2005), and that high levels of masculinity can be experienced by athletes (e.g. Crosset, 1999; Davis & Smith, 2009; Eitzen, 2014). However, it has been argued that the attitudes of individual members of group are more influential than group affiliation (Schwartz & Nogrady, 1996) and that male athlete violence does not differ from the violence which is demonstrated by male non-athletes (Kane & Disch, 1993), but instead is a product of society which historically endorses male dominance (Crosset, 1999). This suggests that the influences of heightened aggression and masculinity may not always derive directly from team membership within a specific sport, but rather, the individual differences of the athletes who choose to take part in specific sports.

These findings of heightened confidence in confrontational situations, risk-taking, competitiveness, aggression and masculinity could be explained by heightened testosterone levels within the athlete population. Dominance and competition are indicators of aggressive behaviour (Edwards, 2006; Mazur, 1995). It has been argued that males are predisposed to asserting their personalities by attempting to be renowned, and gaining influence and power in their career, sports, and other aspects of their lives by competing with others (Batrinos, 2012). Acts of dominance can include violence and aggression but are usually manifested through verbal aggression and aggressive facial responses to dominate competitive tasks (Aluja & Torrubia, 2004). Associations have been found between competitive tasks and higher baseline level testosterone, in addition to more fluctuations of testosterone (Batrinos, 2012). Research has shown positive relationships between testosterone and aggressive parts of sports competition in hockey (Carré & Putnam, 2010), although this study involved only a small sample. It has also been reported that athletes who win sporting events had higher testosterone levels than losing opponents (Booth, Shelley, Mazur, Tharp, & Kittok, 1989), with fans also experiencing testosterone changes (Bernhardt, Dabbs, Fielden, Lutter, 1998).

6.5.1.4 Differences between Sports

Six participants discussed the differences between sports that they had experiences, through their own personal experiences or from what they had witnessed from athletic peers in other sports. For example, one participant described the differences between badminton, a non-

contact individual sport, and rugby, a contact team sport. He explained that the culture and characteristics in each sport were different, stating that specific types of people play rugby and described badminton players as being “boring”. This supports previous research which suggests that a culture can develop when intense bonds are formed in team sports which can lead to antisocial and risky behaviours (Eitzen, 2014). Athletes in some sports can be taught to display masculinities and assert their dominance (Crosset, 1999). These masculine environments can result in male athletes becoming intolerant of others (Messner & Sabo, 1994). The participant suggested that this was the case, leaving badminton due to his dislike of the different culture and individuals involved in badminton when compared to rugby, rather than the sport itself.

There were references to the differences between contact sports and sports involving less contact; one participant described athletes in combat sports, which are full contact sports, as more aggressive than other athletes. According to the social learning theory (Bandura, 1973, 1983) aggressive behaviour can occur through learning from others. Aggression, as with other learned behaviours, can be developed through direct experience or observation of others engaging in aggressive acts. Learned aggressive behaviour can be reinforced by approval of the behaviours during social interaction. There are many studies which investigate the social learning of aggression in sport (e.g. Celozzi, Kazelskis, & Gutsch, 1981; Gee & Leith, 2007; Kirker, Tenenbaum, & Mattson, 2000; Mintah, Huddleston, & Doody, 1999; Wittman, Arce, & Santisteban, 2008), and differences in aggression have been found between contact and non-contact sports (Besharat & Ghiabi, 2012). Therefore, social learning could be used to explain differences of aggression in contact and non-contact sports. If contact athletes observe aggression and success in sports, and are praised for aggression, it would make sense that there would be differences in aggression between sports, particularly with combat sports.

Four participants discussed the differences in attitudes across sports, referring to team values. Specifically, one participant explained that rugby players are taught to be respectful and appreciative of opposition, which is not as common in other sports such as football. This finding is supported by literature which has reported that team values including fair play attitudes, which are values inherent of sport (Arnold, 1994, 2001), are associated with increased on-field prosocial behaviour (Stephens & Bredemeier, 1996) and fewer antisocial behaviours (Rutten et al., 2008). Again, the social learning theory can be used to explain these findings; if a young athlete is taught to be respectful and have fair play attitudes and observes others doing so, then this is more likely to be displayed in their behaviours. However, in sports which are

have cultures in which opposition must be taken out, for example with combat sports which can include aggressive stare downs etc., then this is more likely to be an accepted widely and carried through to younger combat athletes.

Two participants outlined that different sports attract individuals from varying socioeconomic backgrounds and so this can have an impact on behaviours and values within the sport. For example, one participant explained that combat sport athletes tend to come from poorer backgrounds whereas Formula One drivers tend to come from well-established backgrounds. He expressed that this could be a contributing factor towards to a higher frequency of antisocial behaviours which are involved with combat sport athletes. Similarities with this can be drawn from Taks, Renson and Vanreusel (1994) who explained that moderately to highly expensive sports, for example tennis, are not usually played by individuals with lower incomes.

6.5.2 Theme Two: Athlete Identities

This theme was identified in the interviews of ten out of the eleven participants. Three subthemes were identified: athlete characteristics, roles of athletes, and athlete image.

6.5.2.1 Athlete Characteristics

Within the subtheme of athlete characteristics, five of the participants discussed heightened egos and arrogance. This finding is consistent with previous research which states that athletes in masculine environments can develop a sense of entitlement (Eitzen, 2014), and that there can be a hierarchical structure within the teams where individuals are placed based on perceived inferiority and superiority (Bryshun & Young, 1999; Sabo, 2004; Trota & Johnson, 2004). It could be the case that those who are placed higher within the hierarchical structure develop larger egos and arrogance due to their success and dominance within the team social environment. It has previously been found that athletic involvement can lead to heightened peer status generally (Phillips & Schafer, 1971; Rehberg, 1969; Spady, 1970) and so this may be a contributing factor.

Similar to the findings within earlier subthemes, four participants described drive, focus, determination, and motivation as some of the most important characteristics in

successful athletes. Again, this can be supported by literature which found a positive association between athletic involvement and academic achievement (e.g. Marsh & Kleitman, 2003; Miller, Melnick, Barnes, Farrell & Sabo, 2005; Schafer & Armer, 1968; Veliz & Shakib, 2014; Yeung, 2013). Although the findings were derived from an adolescent sample, high academic achievement typically requires focus and motivation and so links can be made in this way for older athletes. Four athletes also referred to high levels of confidence in athletes which, again, can be supported by previous research mentioned earlier regarding athletic involvement and improved self-esteem (Phillips & Schafer, 1971).

Four participants expressed being confrontational, aggressive, opinionated, and stubborn as common athlete characteristics. This is consistent with the work of Nucci and Kim (2005) who found that the competitive nature of sport can result in aggressive and immoral behaviours. Crosset (1999) explained that athlete masculine traits can include asserting dominance and exuding strength and toughness. Messner and Sabo (1994) also stated that masculine environments can result in male athletes becoming intolerant of others. These characteristics would generally be associated with behaviours which are aggressive, confrontational, stubborn, and opinionated and, therefore, these findings are supported by previous research.

Three participants revealed that athletes are often risk-takers, both within and outside of sport. These participants described their risk-taking as part of their personality and explained that they would frequently take risks generally. This can provide some support for previous research which found that athletic involvement can serve as a risk factor for risky behaviours, such as heavy alcohol use and binge drinking (e.g. Ford, 2007; Kwan et al., 2014; Veliz, Boyd & McCabe, 2015). In addition, the findings are consistent with the findings from Study Two of the current thesis (see section 5.4.1) which found that athletes were more likely to engage in general risk-taking than the general population.

Heightened ego, drive, focus, determination, motivation, aggression, and risk taking could be attributed to the Achievement Goal theory (Nicholls, 1984, 1989). The theory proposes that individuals deal with different goals dependent on how the individual perceives their competence and ability. Furthermore, the Goal Orientation theory, which is theoretically based on the Achievement Goal theory, assumes that individuals vary in the way that they perceive and define achievement and how they evaluate personal competence. Based on the theory, there are two main achievement goal perspectives, which are task orientation and ego

orientation (Duda, 1992). For task orientation, self-evaluation of ability is assessed based on their own personal perception of mastery, understanding or knowledge of the task. Task orientation relates to positive achievement such as prolonged involvement in the athletic setting regardless of perceived ability (Duda, 1992, 2001). Ego orientation, however, refers to when perceived ability is calculated in relation to the performance of others. This relies heavily on social comparisons when estimating personal ability. According to the theory, outshining others can signify superiority (Duda, 1992; Nicholls, 1984). Based on the theory, ego-oriented athletes can show increased motivation when in highly competitive environments, where requirements of high competence surpass the demands of the competition.

Two participants discussed the discipline and self-control of athletes in certain situations. These participants explained that these characteristics were a direct result of the desire to be a successful athlete and also made references to influences of their coaches. This finding provides support for literature which states that the coach-athlete relationship can play a vital role in the development of an athlete both in their performance and as a person (Jowett & Cockerill, 2003). As discipline and self-control could be considered prosocial behaviours, it also offers support for literature which reported that coaches can act as role models (Beam, Cher & Greenberger, 2003) and supportive relationships with coaches have been associated with increased prosocial (Rutten et al., 2007). According to the social learning theory, if athletes observe and are taught to be disciplined and have self-control then there is an increased likelihood of replicating these behaviours themselves.

6.5.2.2 Roles of Athletes

Seven participants discussed the varying roles which athletes can adopt through sport, both knowingly and unknowingly. Five of the participants explained that athletes can adopt an alpha male role and that there is a hierarchy present within the team environment. Four of the participants expressed that there was often a tough persona which athletes would adopt. One participant also talked about adopting a fearless persona. These findings are consistent with previous research which states that there can be a hierarchical structure within teams in which athletes are place dependent on perceived superiority or inferiority (Bryshun & Young, 1999; Sabo, 2004; Trota & Johnson, 2004). Additionally, athletes can be taught from a young age to display masculine traits and attitudes, including exuding toughness and being fearless (Crosset, 1999).

One participant, a rugby player, described adopting an army man style persona within his team and that this would be a role which teammates and others would expect. This is consistent with research which suggests that athletes within team sport environments can be influenced by the behaviours of teammates (Blomfield & Barber, 2010; Vest & Simpkins, 2013) and can conform to the behavioural norms of the team (Sabo, 2004). Furthermore, the findings are consistent with Hughes and Coakley (1991) who suggest that athletes tend to regard over-conformity as necessary for success and acceptance.

Some of the findings suggest that athlete roles have changed over time. One participant, a boxer, explained that he had taken on a criminal persona which was common amongst successful boxers. He explained that this was largely due to boxing attracting specific types of people but explained that this had changed in recent years. Similarly, another participant, a former rugby player and coach at present, explained that whilst he was an elite professional athlete there was a high rate of alpha male personas within the team environment. However, he stated that education and adaptability of athletes has now reduced these levels, although the personas still exist due to the success experienced through these types of personas and the nature of sport.

The Identity Process Theory (Breakwell, 1986, 1988, 1993) could be used to explain the development of the above identities and personas. Athletic identity is the extent to which an athlete identifies with their role as an athlete (Brewer, Van Raalte & Linder, 1993) and has been subject to sport psychology research (Ronkainen, Kavoura & Ryba, 2016). Athletes constantly shape their identities through various sporting experiences (Black & Smith, 2007; Martin & Horn, 2013). The athletic identity can be drawn on to provide explanation for findings regarding different identities discussed by the sample of the current study. As sport environments can be masculine and the alpha male, tough type of persona can be part of the sport environment, particularly with team sports, it may be that athletes adopt these identities as part of their athletic identity.

6.5.2.3 Athlete Image

Five participants discussed how the image of athletes and sports can be influenced through various means. Three of these participants conversed about image expectations of their sport. One participant, a golfer, explained that golfers are expected to portray a particular image due to the nature of the game. Two participants also explained that athletes often behave in a

specific way to portray a particular expected image. These findings are consistent with research which states that social norms of sports can lead to over-conformity due to expectations of others (Hughes & Coakley, 1991).

Additionally, one participant explained that pre-existing perceptions and expectations can lead to a distorted image of athletes within specific sports. For example, he stated that the general consensus is that golfers are generally not risk-takers, but there have been many cases reported in the media of golfers engaging in risky behaviour. Moreover, it was also revealed that sporting organisations can dictate the way athletes should behave and have an influence in their media image portrayal. One participant explained that athletes can often be given forced medical leave when an athlete has engaged in risky behaviour as they want to disguise suspension as injury in the media.

Image is defined as the perception of an individual, group or organisation held by an audience (Benoit, 1997), in this case, how the general population perceives athletes, sports, and sporting organisations. It has been suggested that athletes can generate great revenue for institutions and so clubs may be reluctant to accept there is a problem with athlete behaviour (Davis & Smith, 2009). Instead, problems can be ignored or covered up in order to preserve the image of the sporting organisation (Gage, 2008).

6.5.3 Theme Three: Athlete Risky Behaviour

This theme was identified in the interviews of nine out of the eleven participants. Five subthemes were identified: substance abuse, financial risk, health and safety risk, sexual risk, and violent behaviour.

6.5.3.1 Substance Abuse

All nine of the participants discussed occasions in which they had been involved in substance abuse. Six of the participants relayed occasions when they had been involved in particularly excessive alcohol use, whilst eight of these participants detailed occasions in which they had been involved in recreational drug use or the use of performance-enhancing drugs. Each participant referred to a social element associated with these behaviours, often whilst with

teammates. Additionally, some of the participants explained that occasions of substance abuse often resulted in more serious risky behaviours such as driving under the influence and fighting. These findings are consistent with research which suggests that athletic involvement can serve as a risk factor for heavy alcohol use and binge drinking (e.g. Ford, 2007; Kwan et al., 2014; Veliz, Boyd & McCabe, 2015).

However, the findings conflict with studies which have suggested that athletic involvement can serve as a protective factor against illicit drug use (Buckman, Yusko, Farris, White & Pandina, 2011; Kwan, Bobko, Faulkner, Donnelly & Cairney, 2014). Although, the majority of the athletes within the sample were contact sport athletes. Veliz, Boyd and McCabe (2015) found that heightened rates of alcohol use were found in those who play contact sports when compared to non-contact sport athletes. Notably, heightened rates of drug and alcohol use were revealed within the interview with the participant who was a golfer.

This theme is consistent with the ‘Addictive Behaviours’ theme identified in Study One, and higher rates of a wider range of expected outcomes of athlete alcohol use in Study Two (see section 5.4.6.10). As discussed in Study One, addiction and substance abuse can develop from a number of factors such as nature, genetics, emotion, and cultural environment. Individuals can learn how to experience a drug by learning from peers and their surroundings (Svanberg, 2018). According to the social learning theory, if athletes experience peers engaging in and having a tolerant attitude towards substance use, and if individuals themselves have certain expectations from these behaviours then they may be more likely to engage in substance use. This may be a suitable explanation as to why some athletes engage in substance abuse, particularly those in team sports.

Additionally, there are various other factors which have been reported to influence substance use behaviours in athletes including to enhance sport performance (Henning & Dimeo, 2018; Heuberger & Cohen, 2018; Reardon & Creado, 2014; Zandonai, Lugoboni & Zamboni, 2018), to aid sleep and recovery (Gupta, Morgan & Gilchrist, 2017; Zandonai, Lugoboni & Zamboni, 2018), to manage pain (Zamboni, Lugoboni & Zandonai, 2019), mental health problems (Hughes & Leavey, 2012), and other stressors involved with athletic involvement (Bruner, Munroe-Chandler & Spink, 2008; Fletcher & Wagstaff, 2009; Hanton, Fletcher & Coughlan, 2005; Noblet & Gifford, 2002; Woodman & Hardy, 2001). Emotional vulnerabilities and maladaptive coping are factors which have been identified as influencing

addictive behaviours (Blaszczynski & Nower, 2002; Turner, Jain, Spence & Zangeneh, 2008; Walker, 1989), and athletes may cope with stressors by engaging in substance abuse.

6.5.3.2 Financial Risk

Six participant discussed occasions of involvement in financial risk such as gambling, risky financial investments, and instrumental crimes with a financial motive. Due to the majority of the sample being contact sport athletes, the findings are consistent with previous research which suggests that contact sport athletes are often sensation-seekers with more liberal approaches to risk-taking, including behaviours such as gambling (Zuckerman, 1983). However, instances of financial risk were also reported from the non-contact sport athlete in the sample. This theme is consistent with the ‘Addictive Behaviours’ theme identified in Study One, and higher rates of financial risk compared to the general population in Study Two (see section 5.4.1).

Gambling has become progressively normalised, with increased advertising and the increased accessibility to various gambling methods (Abarbanel, Gainsbury, King, Hing & Delfabbro, 2016; Deverensky, 2012), however, gambling behaviours can be damaging for the individual and their families (Langham, Thorne, Browne, Donaldson, Rose & Rockloff, 2016; Salonen, Alho & Castrén, 2016). It has been found that males tend to spend more on gambling than females (McCormack, Shorter & Griffiths, 2014). Whilst studies have shown that individuals receiving lower incomes gamble more often (Beckert & Lutter, 2009; Bol, Lancee & Steijn, 2014; Breen, Hing & Weeks, 2002), studies also suggest that those on a higher net income tend to have increased expenditure on gambling (MacDonald, McMullan & Perrier, 2004; Tan, Yen & Nayga, 2010). It has been claimed that team sport participation can serve as a risk factor of developing addictive behaviours (Grunseit, MacNiven, Orr, Grassmayr, Kelly, Davies, Colagiuri & Bauman, 2012). It has also been suggested that the competitive mindset, which is desired in athletes, can branch out and be associated with other competitive activities such as gambling (Håkansson Kenttä & Åkesdotter, 2018).

Based on the findings of the current study and previous research, it may be that, athletes who have a lot of downtime, can turn to gambling behaviours through boredom and due to easy access, as discussed by one athlete in the current study. Additionally, athletes, particularly professional athletes, can have more disposable income and may develop a tendency to use this

money to gamble. Furthermore, those athletes in team sports may gamble together in groups, which can then lead to engaging in sole problematic gambling.

6.5.3.3 Health and Safety Risk

Eight participants discussed their engagement in risky behaviours which involved a risk to their immediate physical health and safety. These included dangerous driving, involvement in extreme sports often without suitable training or safety precautions, and risks during athletic involvement. The majority of the athletes referred to the excitement of these behaviours and, again, is consistent with previous research into sensation-seeking within contact sport athletes (Zuckerman, 1983). Although Health and Safety risk was not an independent theme found in Study One, the existence of risky driving behaviours in the current sample are consistent with the ‘Addictive Behaviours’ theme in Study One, which included risky driving behaviours. Additionally, the identification of this theme is consistent with heightened levels of Health and Safety risk in athletes when compared to the general population in Study Two (see section 5.4.1).

Athletes in high performance sports are at risk of injury, which can potentially lead to long-term health problems and career-ending injury (Chen, Buggy & Kelly, 2019). There is pressure in competitive sports to “win at all costs” (Volkwein-Caplan, 2013), and this can result in athletes continuing to compete through pain and injury (Fenton & Pitter, 2010; Roderick, Waddington & Parker, 2000; Waldron & Krane, 2005; Wiese-Bjornstal, 2010). Therefore, it could be assumed that this mindset may also be adopted out of the sporting context; athletes may continue to engage in behaviours to gain immediate pleasure or satisfaction, despite potential risks to their own health and safety.

6.5.3.4 Sexual Risk

Five participants revealed that they had been involved in risky sexual behaviour, including unprotected sex and/or sexual promiscuity, consistent with Huang, Jacobs and Derevensky (2010) who found that older male athletes were more likely to participate in risky sexual activities. Most of the participants explained that they did not think of the potential consequences whilst engaging in sexual risk. These findings are consistent with Anderson and Galinsky (2006) who stated that individuals with higher perceived power, as athletes often

possess, can be more attentive to immediate pleasure rather than the potential consequences. This subtheme is consistent with the 'Sexual Behaviours' theme identified in Study One, and also the higher rates of sexual sensation-seeking and risky sexual behaviour in athletes in Study Two.

An explanation for high rates of risky sexual behaviour within the sample could be attributed in part to athletes having easier access to sexual partners, particularly relationships in the short-term. When choosing long-term relationships, husbands, and fathers for offspring, females tend to find health, resources, and social status to be important. Females do not tend to focus on physical qualities to invest in their offspring such as testosterone and immune traits. Behavioural characteristics such as strength, bravery, fame, courage, and social profile can be favoured (Vajda & Reguli, 2018). Success for males can be endorsed by sexual assertiveness or even mild sexual aggression (Weiss, 2010), and these males are more likely to be chosen for extra-marital affairs (Puts, 2010). Sexual dimorphism and masculinity can increase the number of short-term sexual partners (Rhodes, Simmons & Peters, 2005). Athletes involved in higher masculinity and contact sports can have easier access to casual sexual encounters, and this may result in higher incidents of risky sexual behaviour (Vajda & Reguli, 2018).

High risky sexual behaviour rates may also be partly attributed to high testosterone levels, due to the nature of many sports. Athletes with elevated testosterone may be more likely to engage in particular sports and may also gain higher levels due to their training (Vajda & Reguli, 2018). It has been found that the training which is common in many sports involves speed, strength and resistance training, and can result in elevated testosterone secretion (Beavan, Gill, Ingram & Hopkins, 2011; Caruso, Lutz, Davidson, Wilson, Crane, Craig, Nissen, Mason, Coday, Sheaff & Potter, 2012; Kraemer, Marchitelli, Gordon, Harman, Dziados, Mello, Frykman, McCurry & Fleck, 1990). It has been suggested that heightened testosterone levels in males can be associated with lower marital satisfaction, higher divorce rates, and less urge to marry (Mazur & Booth, 1998). Furthermore, males who enter into a long-term relationship can experience lower levels of testosterone (Vajda & Reguli, 2018), with levels increasing during divorce (Mazur & Booth, 1998). Higher testosterone can lead to less suitability for long-term relationships due to lower satisfaction in these relationships (Edelstein, van Anders, Chopik, Goldey & Wardecker, 2014). Therefore, males with higher testosterone levels can have a higher number of sexual partners over time (Gray, McHale & Carre, 2017), and the presence of attractive females can result in further testosterone secretion

and an increased willingness to accept risks (Roney, Simmons & Lukaszewski, 2010; Roney, Lukaszewski & Simmons, 2007).

Additionally, substance abuse may contribute towards engagement in risky sexual behaviours, as all nine of the interviewed participants reported engaging in substance use (see section 6.5.3.1). As discussed in Study One (see section 4.5.1), research suggests that alcohol is associated with decision making regarding risky behaviours (Leigh & Stall, 1993), and that alcohol can play a part in risky sexual behaviour (Gordon & Carey, 1996; MacDonald, Fong, Zanna & Martineau, 2000; MacDonald, Zanna & Fong, 1996, 1998).

6.5.3.5 Violent Behaviour

Four participant discussed occasions in which they had been involved in violent behaviours. All four participants explained that they had been involved in fights whilst with their teammates. These findings are consistent with previous research which states that the competitive nature of sports can result in aggressive behaviours (Nucci & Kim, 2005), that masculine environments can result in males becoming intolerant of others and engaging in offending and risky behaviours (Messner & Sabo, 1994), and that violent sports can influence off-field behaviour (Coakley, 2007). However, this may not differ from violence demonstrated by male non-athletes (Kane & Disch, 1993). This subtheme is consistent with the 'Violent Behaviours' theme identified in Study One, and higher levels of aggression-hostility (see section 5.4.6.9).

All occasions of violence in the current study were relayed by the participants involved some level of alcohol use. This is consistent with higher aggression as an alcohol expectancy (see section 5.4.6.10) in athletes than the general population in Study Two. Research has often found that perpetrators of violence consumed alcohol before a violent act (Chermack & Giancola, 1997; Pernanen, 1991; Roizen, 1997). Heavy drinking has also often been found in males who are domestically violent (Leonard, 2001, 2005; Lipsey, Wilson, Cohen & Derzon, 1997), and in around half the cases of sexual violence, in which alcohol had been consumed by the perpetrator, the victim, or both (Abbey, 2011). Leonard, Collins, and Quigley (2003) found a relationship between heightened alcohol use in males and more severe aggression. It has also been found that higher intoxication from alcohol was associated with greater aggression in aggressive situations (Graham, Osgood, Wells & Stockwell, 2006), and that drinking alcohol can contribute to aggression severity (Wells, Giesbrecht, Ialomiteanu &

Graham, 2011). Contrastingly, Pernanen (1991) found no association between violence severity with alcohol consumption.

Social learning perspectives are that individuals learn antisocial values, such as violence, through close social interactions, such as with peers and family (Akers, 1998; Sutherland, 1947). Some peers and social groups have more positive attitudes towards certain antisocial and criminal behaviours. Operant conditioning can take place where learning result from imitation, and personal and vicarious reinforcement. According to this theory, violence can occur through continuous social observation, attitude internalisation, and reinforcement, both real and perceived, of own behaviours and those of others (Kreager, 2007). Because the sample of the current study revealed that the violent incidences occurred with teammates, the social learning theory could be used to explain the development of violent behaviours within the sample.

6.5.4 Theme Four: Factors which Increase Athlete Risky Behaviours

This theme was identified in the interviews of all eleven participants. Two subthemes were identified: Influence of Sport, and Individual Differences.

6.5.4.1 Influence of Sport

Ten participants discussed explained how peer influence within the sporting context can increase risky behaviours, discussing group pressures, both direct and indirect, and conformity. Six of the participants expressed that the engrained culture of sport can facilitate increased levels of risky behaviour due to the masculine nature of male-dominated sports. These findings are consistent with previous research (e.g. Coakley, 2007; Crosset, 1999; Davis & Smith, 2009; Eitzen, 2014; Kreager, 2007; Messner & Sabo, 1994). Six participants explained that success within sports can increase risky behaviour due to increased status, power, money, and attention. These findings are consistent with previous research into heightened perceived sense power and status, stating increased power can lead to access to increased rewards, which can then lead to a sense of invincibility (e.g. Pappas, 2012; Shavers, Baghurst & Finkelstein, 2015; Smith & Hattery, 2006). Three participants explained that some risky behaviours could be influenced by the amount of downtime in their sport, leading to

boredom. For example, one participant explained that he began gambling money because of the downtime within rugby, which then resulted in a gambling habit. Interestingly, one participant expressed that he believed levels of risky behaviour in athletes had increased due to accessibility via dating apps, camera phones, and social media.

There is evidence to suggest that there are differences in personalities of athletes and non-athletes, depending on sport type (García-Naveira, Ruiz-Barquín & Pujals, 2011; Ruiz-Barquín, 2006, 2008, 2012). It is understood that personality is developed from an interaction of personal genetics and environmental influences, such as sport and physical activity (Allen, Greenless & Jones, 2013; García-Naveira & Ruiz-Barquín, 2013). Based on these findings, it is possible that not only are individuals with particular individual differences more likely to engage in certain sports, but sports themselves can have impact on personality and behaviour of athletes. As a result, sports involvement may have an impact on decisions to engage in risky behaviour for some athletes.

6.5.4.2 Individual Differences

Seven participants discussed aspects of their personality which they believed to have influenced their risky behaviour, including addictive personalities, sensation-seeking tendencies, and heightened confidence levels. These findings are consistent with previous research which has found that sensation-seeking and impulsivity influence higher levels of risk-taking behaviour (e.g. Deckman & DeWall, 2011; Ulleberg & Rundmo, 2003). Raab & Johnson (2004) also reported that risky decisions can be explained by differences in personality traits. The findings were also consistent with findings from Study Two in which a medium significant positive correlation was also found between male athlete Impulsive Sensation-Seeking and Recreational Risk (see section 5.4.6.9). Three of the participants discussed the effect of socioeconomic background and their upbringing as a factor which influenced their risky behaviour, including living in a high crime rate poor area, and rebellion against strict parenting. These findings relate to earlier findings in the current study in which athletes reported that different types of sport attracted individuals with specific types of backgrounds, influencing levels of risky behaviour (see section 6.5.1).

In previous research, when compared with non-athletes, athletes were found to have scored higher for personality traits such as higher perseverance, resilience, self-esteem, positivity, and self-efficacy (Laborde, Guillen & Mosley, 2016). A number of personality traits

have been commonly found in athletes, namely activity, aggressiveness, dominance, optimism, mental toughness, and low anxiety (García-Naveira, Dalimier, Ruiz-Barquín & González, 2016). Differences have also been found between the individual differences of athletes in team and individual sports. For instance, those in team sports have been found to be more extraverted and outgoing (Eysenck, Nias and Cox, 1982; Rhodes and Smith, 2006). Again, as there is evidence to suggest that there are differences in personalities of athletes and non-athletes, depending on sport type (García-Naveira, Ruiz-Barquín & Pujals, 2011; Ruiz-Barquín, 2006, 2008, 2012), sports involvement may have an impact on decisions to engage in risky behaviour for some athletes.

6.5.5 Theme Five: Factors which Inhibit Athlete Risky Behaviours

This theme was identified in the interviews nine out of the eleven participants. Four subthemes were identified: Age and Responsibilities, Positive Roles Models, Consequences of Risky Behaviour, and Management of Risky Behaviour.

6.5.5.1 Age and Responsibilities

Five of the participants discussed the impact that age had on their risky behaviour. All but one explained that with increased age and maturation, their risky behaviour had decreased. This finding is consistent with previous research which found that risk-taking was more common in adolescents and young adults, often reducing with increased age (Gardener & Steinberg, 2005; Kann et al., 2016; Kretsch, Mendle & Harden, 2014; Reynolds et al., 2019). One of the participants explained that as they got older, they had less to prove to others. Gardener and Steinberg (2005) found that peer influence can play a large role in adolescents. Based on the findings of the current study, it may be the case that this peer influence on athlete risky behaviour reduces with age. However, one participant revealed that their sexual risk had increased with age. These findings are contradictory of the findings from Study Two (see section 5.4.2.2) which found, unlike the general population, no significant correlation between athlete age and risk-taking. However, Study Two focused on general risk-taking rather than specific aspects of risky behaviour and so it may be possible that, like one participant in the current study, athlete age can have an impact on specific risky behaviours rather than general

risk-taking. Two participants also expressed that their risky behaviour has reduced with increased responsibility, again, suggesting that athlete risky behaviour reduces with age.

6.5.5.2 Positive Role Models

Four participants referred to positive role models when discussing factors which prevented or reduced involvement in risky behaviours. Three participants expressed that their parents and families had positively influenced their behaviours, such as positive family values and teaching them about peer pressure from a young age. One participant explained that their coach had a positive impact on him both within and outside of sport, influencing him to stay focused and stay away from risky behaviours. These findings are consistent with previous research which has found that coaches can influence levels of antisocial behaviour (Nucci & Kim, 2005), and can take on the role of mentors and role models (Jowett & Cockerill, 2003). Supportive relationships between athletes and coaches have been found to be associated with increased prosocial and less antisocial behaviours (Rutten et al., 2007). Additionally, fair play attitudes have been found to be associated with increased prosocial behaviour (Stephens & Bredemeier, 1996) and fewer antisocial behaviours (Rutten et al., 2008).

The findings suggest that improved relationships with key individuals has the potential to reduce risky behaviour in athletes and so coaches and other influential figures should be encouraged and supported to act as positive role models. To facilitate positive coach-athlete relationships, Olusoga, Butt, Hays and Maynard (2009) suggest that coaches, as well as athletes, should be provided with more psychological support to manage stressors which can derive from competitive environments. Research has shown that coach behaviours caused by stress can have a negative impact on athletes (Gould, Guinan, Greenleaf & Chung, 2002), and behaviour changes in coaches can cause stress in athletes (Gould, Guinan, Greenleaf, Medbery & Peterson, 1999). By providing more support for coaches, this may aid their ability to act as positive role models for athletes and has the potential to have a large impact on athlete behaviours.

6.5.5.3 Consequences of Risky Behaviour

Four participants discussed how the consequences of behaviours have prevented and reduced their involvement in risky behaviours. Two of the participants expressed that previous

experiences had influenced their risky behaviour due to experiences with negative consequences. One of these participants stated that they would make decisions based on the cost and benefit of a behaviour, which would not have occurred when he was younger. Two participants expressed that potential consequences of particular behaviours would inhibit them from engaging in specific risky behaviours. Specifically, both of these participants stated they would not put another person at risk. These findings suggest that once an athlete understands the potential consequences of risky behaviours to themselves and others, they may be less likely to engage in those behaviours.

Research suggests that risky decision making involves cognitive evaluation of reward and risk of a behaviour (Xue, Lu, Levin & Bechara, 2010), and is regulated by homeostatic signals (Loewenstein, Weber, Hsee & Welch, 2001; Paulus, 2007). Risky behaviours such as gambling provokes subjective arousal which is associated with changes in heart rate, blood pressure, and other physiological changes (Goudriaan, Oosterlaan, de Beurs & Van den Brink, 2004). Feelings of excitement and arousal can reinforce risky behaviours (Anderson & Brown, 1984) and can provide explanation for both regular and pathological behaviours, such as regular and compulsive gambling (Sharpe, Tarrier, Schotte & Spence, 1995). Feelings of heightened arousal and excitement when engaging in a behaviour are associated with greater perseverance (Dickerson & Adcock, 1987), and more extreme withdrawal symptoms when abstaining from these behaviours (Wray & Dickerson, 1981). Behaviours can also be associated with negative responses and pain, based on previous experiences, which can encourage an individual to abstain or avoid the behaviour, providing how some individuals have avoided engagement in certain risky behaviours based on previous negative consequences and experiences.

6.5.5.4 Management of Risky Behaviour

Three participants explained that they had experienced the use of effective methods for controlling occurrences of specific risky behaviours. Two of the participants stated that they had learned to actively manage their impulses to engage in risky behaviours. Whilst one participant expressed that he had learned to control his urges to gamble, the other participant explained that he recognised the problem and removed himself from environments which encouraged him to engage in criminal activities. These findings suggest that environmental influences can have a large influence on athlete risky behaviour and that providing support and

interventions which offer self-management methods could be beneficial. Moreover, one participant explained that improved sporting regulations had effectively reduced athlete on-field risky behaviours in his sport. This finding suggests that improved regulations across all sports could reduce on-field risky behaviour, as well as off-field risky behaviour, which supports research which states that behaviours within the sporting context can influence behaviours outside of sport (Coakley, 2007).

Early interventions have been found to be most effective when reducing the severity and impact of risky behaviours, impulsivity, and sensation-seeking, by increasing individual control. There is research to suggest that adolescents can learn to avoid risky behaviours which may be harmful to them if they are provided with education and information on the impacts of the behaviours, and the emotion responses linked to the behaviours (Romer, 2010). Additionally, graduated learning intervention programmes have been found to be particularly successful in reducing risky behaviours such as with driving, resulting in fewer accidents and deaths (McCartt, Shabanova & Leaf, 2008; Morrissey, Grabowski, Dee & Campbell, 2006). These findings should be considered when developing future intervention and educational programmes for athletes, and the results from the current study suggest that there may be a need for this to aid athletes in managing their own risky behaviours.

6.5.6 Implications of the Research

The results suggest that, consistent with previous literature (e.g. Coakley, 2007; Crosset, 1999; Ford, 2007; Eitzen, 2014; Kreager, 2007; Messner & Sabo, 1994; Nelson, 1994; Sabo, 2004; Sabo & Runfola, 1980; Warshaw, 1988), athletes encounter experiences with sport team culture including heightened masculinity and conformity to team social norms. Actions should be taken to encourage more fair play values and reduce hyper-masculinity within the sporting context to encourage prosocial behaviours and prevent antisocial behaviours. The majority of the sample identified the sporting culture as an influence of their risky behaviour. In taking steps to change the engrained culture within sports it may be possible to moderate harmful long-standing team norms of athlete culture and reduce occurrences of risky behaviour in the athlete population. In turn, this may lead to a reduction of risky behaviours within the general population.

The results also revealed that the large majority of the athlete risky behaviours which were discussed occurred with teammates, often involving heavy alcohol and/or drug use. Substance abuse, although identified as an independent theme, was also present to some extent in all other subthemes within the Athlete Risky Behaviours theme. In addition to substance abuse being a risky behaviour in itself, it was also identified as an influence of other risky behaviours in the sample. For example, all violent occasions recalled by participants involved some level of alcohol consumption with teammates. This suggests that substance abuse is a key issue which needs to be addressed within the athlete population. Future athlete interventions should focus on substance abuse and the consequences which can arise from such behaviours, particularly in team situations.

In addition to influences in the sporting context, a number of individual differences were identified as influences of heightened risky behaviour, such as sensation-seeking and addictive personalities. It may be beneficial for sporting organisations to provide readily available services specifically for athletes which focus on addiction and other potentially harmful impulses. Offering anonymity and confidentiality may also encourage athletes to engage with these services.

The interviews revealed a number of factors which can inhibit athlete risky behaviour. Two of these factors were age and responsibilities, and positive role models. Previous research has found that more experienced teammates can encourage younger teammates to engage in risky behaviours (Crosset, 1999), and that peers can have an influence on athlete risky behaviour (e.g. Blomfield & Barber, 2010; Vest & Simpkins, 2013). If older athletes were encouraged to be actively involved in working with younger athletes, this could provide a means for increased responsibility and create a stronger presence of positive role models. In doing so, this type of intervention could reduce incidences of risky behaviour in existing athletes, as well as younger and upcoming athletes and future generations, potentially breaking the cycle of long-standing team norms which can influence risky behaviour. Other influential individuals should also be encouraged to act as positive role models for athletes. The current research, as well as previous research (e.g. Jowett & Cockerill, 2003; Nucci & Kim, 2005; Rutten et al., 2007), has found that coaches can have a large influence on athlete risky behaviour, reinforcing prosocial behaviour, and reducing antisocial behaviour.

Additionally, the consequences and management of risky behaviour were discussed as inhibitive factors. A proactive approach should be taken in which educational workshops are

provided for young, as well as older athletes. This type of intervention could focus on teaching athletes of the potential consequences of risky behaviour on themselves and others, based on previous cases of athlete risky behaviour. Additionally, the interventions could include provision of support and self-management methods for athletes to identify and manage potentially problematic behaviours. Within this, other services specific to athletes could also be signposted, such as the athlete addition services suggested earlier. Furthermore, revised regulations and penalties, as well as sporting organisations becoming more transparent regarding athlete behaviour, may encourage increased prosocial behaviours off-field as well as on-field.

6.5.7 Limitations and Directions for Future Research

The current study provides a valuable insight into the personal experiences of elite athletes, both positive and negative, and contributes to the field of research by focusing on a professional sample, rather than adolescent athletes. The current study also investigated a wide variety of contributory factors of elite athlete risky behaviour, rather than focusing on specific behaviours and influences. The results were consistent with previous research, but also offered a range of original practical implications and a multiplicity of potential directions for research. However, the study does incur limitations which should be addressed by future research.

Although the sample comprised of athletes in various sports, all of the participants, except for one golfer, were involved in sports which had some element of contact or violence. This means that the findings may not be applicable to those in limited or non-contact sports and so future studies should include a wider range of athletes from a variety of sports. In doing this, any discrepancies between the experiences of contact and non-contact athletes could be identified more clearly. However, within the current study common themes were present in the interview of the golfer and the rest of the sample.

In addition to the lack of diversity regarding contact and non-contact sports, within the sample there was complexity in deciphering the differences between team and individual sports. Although some sports included in the sample would typically be classed as individual sports, it was clarified by some of these athletes that they would often train as a team with other athletes at their level within their sporting club, i.e. golf and combat sports. It would be valuable for future research to include a multitude of athletes from a range of typically individual sports

as well as team sports. This would enable researchers to identify the magnitude of the influence that sport teams can have on risky behaviour when compared to those who predominantly train and compete individually.

Moreover, the research included individuals all originally from the UK and Ireland. Although some of the sample were living in other countries at the time of data collection, the research did not provide significant cultural diversity to successfully identify cultural differences. Future research could focus on the cultural differences between athletes to explore whether athletes from varying cultures have different experiences within with sporting environment, and whether these experiences have similar impacts to off-field behaviour.

6.5.8 Conclusion

To conclude, the study provides a valuable insight into the experiences of elite professional athletes, using a unique sample when compared to previous research. The results suggest that although athletic involvement can have many beneficial impacts, it can also harbour negative influences on levels of risky behaviour in athletes. The findings were consistent with previous research, and also offer a variety of novel practical implications in addition to areas for future research. The study provides support for the results of Study One and Study Two of the current thesis, whilst identifying factors which were not previously identified through quantitative research methods, providing further contribution to knowledge in the field. Interventions should be developed to educate athletes of the consequences of risky behaviour, to provide more positive role models, to increase access to athlete-specific services surrounding addiction, and to aid in the use of self-management methods for reducing risky behaviour. Future research should include elite athletes with increased diversity and across a wider range of sports.

CHAPTER SEVEN

General Discussion

7.1 Introduction

The present thesis investigated the risky behaviours of athletes. It aimed to identify the most common types of athlete offending and risky behaviour, to distinguish whether athletes engage in heightened rates of general risk-taking than the general population, and to explore the influences or predictors of athlete general risk-taking, including both individual differences and environmental factors. The research sought to develop previous research which has predominantly focused on singular types of risky behaviour within adolescent and collegiate athletes. All three studies provided a novel and valuable insight into the issues surrounding athletic involvement and the influences of athlete risky behaviours.

7.2 Summary of Main Findings

The initial study explored common offending and risky behaviours within a sample of elite athletes, a population type subject to media coverage and exposure to the general public. Study One was exploratory in nature and centred on high-profile athlete cases of offending and risky behaviour. This was achieved through the use of secondary data via various media sources to develop a database of reported cases of athlete offending and risky behaviours. To date, there has been a lack of reliable and openly accessible statistical data regarding the most common offending and risky behaviours committed by the athlete population, across sports and countries. Statistical data from the dataset was generated to identify the most common offending and risky behaviours within the sample, and to understand which behaviours should be given priority when developing future interventions and preventative measures. A Smallest Space Analysis was also performed on the 212 cases within the dataset. This generated a visual representation of the associations between behaviours and allowed common behaviour themes to be distinguished.

Three behavioural themes emerged from the data: sexual behaviours, addictive behaviours, and violent behaviours. In the sexual behaviours theme, sexual assault and alcohol use were co-occurrent in a large number of the cases. The addictive behaviours theme revealed

risky driving behaviours and possession of drugs were present in a number of the cases. Additionally, in the violent behaviours theme, assault and domestic abuse behaviours were present had high frequencies. The study resulted in the generation of statistical information, common risky behaviour themes, and indicated areas for attention when developing interventions for the reduction of offending and risky behaviour in athletes.

Based on the outcomes of Study One, it was unclear whether the behaviours were simply highlighted more through the media, therefore resulting in general population exposure to stories and the possible perception of higher athlete risky behaviour rates. Due to the number of cases of offending and risky behaviour in athletes discovered in the first study, it was important to investigate whether athletes actually engage in more risky behaviours than the general population. As offending and risky behaviours explored in Study One incur risk-taking, direct comparisons of the general risk-taking scores of athletes and the general population were conducted, along with scores from predictor characteristic scales. Study Two was a cross-sectional study using a collection of scales; one scale was a domain specific risk-taking (DOSPERT) scale measuring general risk-taking tendencies, and a variety of scales measuring previously identified predictor characteristics of risk-taking were also used. The study was conducted to first decipher whether athletes would score significantly higher for general risk-taking when compared with the general population. Predictor characteristics were then measured in each population type to explore whether there would be significant differences. Finally, this was followed by a series of multiple regressions to understand whether the predictor variables previously identified were significantly associated with general risk-taking.

It was revealed that athletes scored significantly higher than the general population for recreational, financial, health and safety, and ethical risk domains, and although not significantly, athletes also scored the highest for the social risk domain. Similar results were found for male athletes when the sample was split by gender. Male athletes scored significantly higher for sexual sensation-seeking, masculinity, psychopathy, impulsive sensation-seeking, aggression-hostility, activity, and aggression alcohol expectancy. The male athlete population scored the highest for more of the predictor variables than the other population types. When scores from the DOSPERT scale and the predictor characteristic scales were subjected to multiple analyses, a number of significant associations were revealed. Personality and psychopathy traits were each significantly associated with four out of the five risk domains. Gender was associated with three risk domains, whilst age was associated with two of the

domains. Masculinity, social assertiveness and positive affect, sexual sensation-seeking, and femininity were all associated with just one of the five risk domains.

Finally, Study Three comprised of qualitative semi-structured interviews conducted on a sample of 11 athletes. The interview schedule questions were developed from the previous findings in Study One and Two. The interviews were performed to attain more rich and detailed data regarding issues which were previously identified and to achieve a more profound understanding of the issues surrounding the impact of athletic involvement and influences of athlete risky behaviour. The qualitative method also allowed for the identification of factors which were not explored through previous quantitative data collection methods.

A variety of interesting findings were discovered in the third study, which developed the results from the prior studies further through the use of qualitative research methods. Five main themes were identified from the data: impact of athletic involvement, athlete identities, athlete risky behaviours, factors which increase athlete risky behaviour, and factors which inhibit athlete risky behaviours. Within each of the main themes were a number of subthemes. The main theme *impact of athletic involvement* consisted of four subthemes: benefits of athletic involvement, sporting culture and environment, differences between athletes and non-athletes, and differences between sports. The theme of *athlete identities* comprised of three subthemes: athlete characteristics, role of athletes, and athlete image. The third main theme of *athlete risky behaviours* included five subthemes: substance abuse, financial risk, health and safety risk, sexual risk, and violent behaviours. *Factors which increase athlete risky behaviour* comprised of two subthemes: influence of sports, and individual differences. Finally, the theme of *factors which inhibit athlete risky behaviour* consisted of four subthemes: age and responsibilities, positive role models, consequences of risky behaviour, and management of risky behaviour.

7.3 Discussion of Main Findings

The extensive amount of media coverage dedicated to athletes indicates its international impact (Brown, 2014). The most elite athletes are often used to promote products and attain sponsorships due to their popularity and potential for impact on the general population. However, there are countless numbers of media reports concerning offending and risky behaviours of athletes at both professional and collegiate levels. Despite the amount of news coverage, this has thus far been a neglected area of research. Although studies have questioned

the rates of risky behaviours within the athlete population, the majority of research has focused on one or two types of risky behaviours and/or personal characteristics, and has compared the scores of athletes with those of their non-athletic counterparts. Such studies were able to demonstrate heightened levels of specific risky behaviour in athletes and/or heightened levels of predictor characteristics (e.g. Mastroleo, Scaglione, Mallett & Turrisi, 2013; Nicholls, Madigan, Backhouse & Levy, 2017). However, previous work has failed to identify the extent of the issue, and rates of athlete risky behaviour media reports appear ever-increasing.

The current research revealed a number of personal and environmental factors which may influence athlete risky behaviour, with common findings revealed throughout the three study chapters, such as with risky behaviour themes. The research began with a broad exploration of common athlete offending and risky behaviour types, before investigating and comparing athlete general risk-taking levels and predictor characteristics with the general population, and finally, using first-hand qualitative interview data to enrich the findings of the thesis and explore new areas for attention.

7.3.1 Risky Behaviour Development

Theories of criminality and offending behaviour can be drawn on when attempting to explain risky behaviours of the athlete population. The developmental life-course theory provides a comprehensive perspective to the study of criminal behaviour as it considers the multiplicity of factors which can influence offending over time and within different contexts (Thornberry, 1997). One of the assumptions is that antisocial behaviour decreases with age (Piquero, Jennings & Barnes, 2012; Thornberry, 1997). However, Moffitt (1993) discussed two distinct types of offenders: those who display offending behaviours only up to and through adolescence, and those who are lifelong offenders. For example, those who prove to be lifelong offenders tend to exhibit behavioural problems from a young age and these behavioural issues can develop into more serious criminal behaviours through and into their adult life (Moffitt, 1993). However, it is unclear why antisocial behaviours in some deplete, but then continue in others (Piquero et al., 2012). Although the current research does not solely focus on offending behaviours, parallels can be drawn for risky behaviours. As seen in with the SSA in Study One, many of the offending and risky behaviours co-occurred with others, resulting in difficulties classifying reliable themes of behaviours. It is possible that whilst some athlete risky behaviour will reduce naturally due to factors such as increased age and experience, others may continue

to engage in these behaviours indefinitely without appropriate intervention. In terms of differences between the athlete and general population, it must be considered that athletes tend to be submerged into an athletic environment from a young age, which could affect behavioural development.

7.3.2 Biological Factors

In addition to individual differences regarding personal characteristics earlier discussed, a biological factor which should be considered in athlete risky behaviour is hormonal changes. Testosterone levels have been found to be associated with financial risk-taking (Coates & Herbert, 2008), and can influence status seeking behaviours in social contexts (Boksem, Mehta, Van den Bergh, van Son, Trautmann, Roelofs, Smidts & Sanfey, 2013). Risk aversion has also been found to be associated with intermediary levels of testosterone, but decreased risk aversion was reported in those low and high in testosterone (Stanton, Mullette-Gillman, McLaurin, Kuhn, LaBar, Platt & Huetell, 2011). Although this was not a variable included in the current thesis, considering that athletes tend to have heightened levels of testosterone, this should be considered in similar future studies of athlete risk-taking. This may particularly be the case with individuals using performance-enhancing drugs containing steroids.

7.3.3 Environmental Factors and Social Learning

As discussed in study three, environmental factors such as teammates and role models such as coaches, family and other athletes can then have a large influence on behaviour, both positively and negatively. The Social Learning Theory (Bandura, 1969, 1977) can be used to offer explanation as to the influence of athlete behaviour. The theory centred on the concept of individuals learning from observation of others in social contexts (Omrod, 1999). Vicarious learning occurs when an individual observes the consequences of specific behaviours exhibited by another person (Stuart-Hamilton, 2007). For this to occur, the individual must perceive the other person as an appropriate model of behaviour. If a desirable outcome arises from a behaviour then it is possible for vicarious positive reinforcement to occur leading the observer to then emulate similar behaviours, although it is dependent on the strength of the reinforcement (Almeida, 2011). Diacin, Parks and Allison (2003) reported findings consistent

with this theory when investigating athlete attitudes towards performance-enhancing drugs. Alternatively, vicarious punishment can also arise when negative consequences are observed (Bandura, 1971).

In the current thesis, the majority of athlete samples were from team-sports. As athletes in team sports spend copious amount of time with teammates and coaches, it can be assumed that social learning occurs to some extent within these environments. Notably, athletes tend to engage in these sports from a young age, and adolescence tends to be described as a period of heightened risk-taking (Steinberg, Albert, Cauffman, Banich, Graham & Woolard, 2008). The social learning theory could therefore be used to explain some of the findings from the current research. Diacin, Parks, and Allison (2004) corroborated this claim stating that social reinforcement can be examined in the athlete population. For example, if a coach was to encourage or overlook a player using performance-enhancing drugs and was then rewarded by being given extra playing time, the player experienced a desirable response and would then be likely to continue to take the drugs. Furthermore, if an observer was then to witness this reinforcement with another player, they may then be likely to take the drugs in order to seek out the same desired response. This effect was reported in some of the interviews in study three of the current thesis. These behaviours may then be emulated by future generations of athletes in a behavioural cycle if interventions were not to be put in place such as education and undesirable consequences for risky behaviour. Similar effects may also be experienced with the general public observing the behaviours of celebrity athletes, creating a larger scale issue. Although, it is unclear whether these effects do actually take place with regards to offending behaviours.

7.3.4 Behaviour change

Learning and behaviour theories propose that behaviour is learned through environment, and behaviour can be modified using a variety of techniques. Analysis of the antecedent and consequences of problem behaviour, and the clear definition of intervention goals are the foundations for behaviour change (Poczwadowski, Sherman & Ravizza, 2004). The cognitive-behavioural approach is widely used by therapists, in addition to sport psychologists (Brewer, Van Raalte, Petitpas, Bachman & Weinhold, 1998; Hill, 2001). This approach focuses not only on appropriate behaviour change but also aims to empower individuals to self-manage and control their own thought and decision-making processes

(Poczwadowski, Sherman & Ravizza, 2004). Future research may consider studying the effects, both immediate and long-term, on athlete offending and risky behaviour.

7.4 Practical Implications of Findings

7.4.1 Development of Educational Interventions

The central contributions of the work derive from an understanding of the key areas which could primarily be focused on when implementing interventions. The findings highlight the need for educational interventions to reduce and prevent particular athlete risky behaviours. Based on the findings from the studies, it would appear that without suitable interventions, long-standing norms and attitudes will continue to be passed on to future generations of athletes, continuing potentially harmful cycles of risky behaviours. Some of the key findings in the studies revealed that interventions should focus on sexual, addictive, and violent behaviours, in line with the themes developed through the SSA in Study One. These interventions could also include a focus on particular individual differences, such as masculinity, psychopathy and impulsivity, and environmental factors, such as peer influence and sporting culture, which were identified in Study Two and Three. Proactive approaches should be taken to prevent these behaviours being emulated in the younger athlete population, and to reduce risky behaviours within older and more professional athlete groups. Reactive approaches should provide support for sport player welfare in instances such as addiction, and to act as a deterrent to others when interventions are put in place.

It has been found that previous government paid media announcements to reduce drug use have unintentionally sent the wrong message to the target audience and have given the perception that drug behaviours are prevalent within their peer group, resulting in the opposite effect (Fishbein, Hall-Jamieson, Zimmer, von Haeften & Nabi, 2002; Hornik, Jacobsohn, Orwin, Piesse & Kalton, 2008). Early intervention programmes have shown to be successful in reducing gravity and impact of sensation-seeking and impulsive behaviours. This can be done through increasing control. There is evidence to suggest that the implementation of interventions in adolescence can help individuals to learn to avoid potential harmful risky behaviours when provided with information regarding the consequences and emotional responses associated with particular behaviours (Romer, 2010). An example of this is referenced in Bachman, Johnson and O' Malley (1998) who claimed that the 'Monitoring the

Future Study', which has been implemented since 1974 in the United States, has been one of the most successful drug deterrent programmes. The intervention has focused on developing the perception to adolescents and young adults that drugs are harmful to health and are dangerous.

Moreover, there is evidence to suggest that graduated learning can be effective in proactively preventing risky behaviour and encouraging safer behaviours. An example of this is the graduated driver programme which has been employed in many U.S. states. The programme was developed based on the theory that driving is a complex behaviour which requires practice and experience (Romer, 2010). Adolescent learner drivers are required to drive only under the supervision of adults and must also pass a trial period. It was revealed that, after the implementation of the programme, there was a significant reduction of car accidents after six months on average (McCartt, Shabanova & Leaf, 2008), and a reduced rate of serious injury inflicted by car accidents (Morrissey, Grabowski, Dee & Campbell, 2006). Based on these findings, it may be possible to develop graduated intervention programmes to be used with the aim of reducing other risky behaviours in a similar way.

Risky sexual behaviours of athletes were a common theme which emerged throughout all three studies of the thesis. A focus on issues regarding sexual consent, peer influences in sexual situations, and the consequences of risky sexual behaviours., alongside alcohol use, should be a priority when developing educational programmes for athletes. Addictive behaviours were also revealed as a key issue throughout the studies. Not only are behaviours surrounding addiction risky, but they can also be predictors of other risky behaviours. With addictive behaviours being present in all three studies, the results underline the need for interventions to focus on addiction and impulsive behaviour in athletes. Violent and aggressive behaviours were another common behavioural theme which was present throughout the thesis. It would be beneficial to develop interventions which focus on athlete violent behaviours, attitudes towards women, the potential consequences of hyper-masculinity and violence, and self-management techniques in different contexts.

The interventions and training could be offered to young and adolescent athletes in preparation for the possibility of continuing into an adult athletic career. The interventions should highlight the potential consequences and emotional impact of risky behaviours, and also teach techniques for self-management in the event of situations involving risk decision making. Ongoing support should also be offered to both adolescent and older athletes. They could be

offered athlete-specific services and online materials for which they could gain confidential support away from peer influences and the general population. This could aid athletes within the team environment in addition to during long periods of downtime which athletes can experience at higher levels.

7.4.2 Transparency in the Sporting Sector

In addition to the educational programmes and services proposed above, the findings highlight the need for transparency in the sporting sector. Elite athletes and sporting bodies have a position of power in which they can reach and influence a wide population. Athletes receiving privileges through leniency and protection when engaging in offending and risky behaviours communicate a detrimental message to the general population and aspiring athletes, particularly when sporting bodies have purposefully covered up cases. It is essential that the sporting sector takes responsibility and remains transparent about athlete behaviour, rather than overlooking or concealing information. One way in which this could be done is through the development of databases regarding athlete criminal behaviour, and behaviours which violate sporting rules. Benedict and Klein (1997) claim there are no databases which confirm whether an individual accused of a sexual offence is an athlete. Additionally, to the researchers' knowledge, there are no openly accessible databases which report the involvement of athletes in other types of offending behaviour. This could be achieved through sporting organisations collecting data on arrest and conviction rates of their athletes, across sports and across countries. The development of databases would allow for an efficient and reliable method of statistical data generation and would facilitate future research in the area. Additionally, this would allow for recognition of success rates of interventions and educational programmes. This data could also help in the identification of emergent problem behaviours which need intervention.

7.4.3 Consequences of Offending and Antisocial Behaviour

Harsher custodial sentences or penalties for offending and antisocial behaviours, in line with the general population, should be consistently delivered to those in the elite athlete population. It has been found that sexual violence in universities were committed by significantly more male collegiate athletes than non-athlete students (Crosset, Benedict &

McDonald, 1995). However, Benedict and Klein (1997) found that athletes were arrested at a higher rate than the national average but the conviction rate for athletes was much lower. Leniency has also been found in cases such as the Brock Turner case in which the judge gave him a lenient sentence for sexual assault due to the impact and consequences that a large sentence would have on him (Levin, 2016). Clemency can often be granted to elite athletes, which portrays a detrimental message to other athletes and the general population. Stricter sentences, at least consistent with the general population, alongside educational interventions and increased transparency of the sporting sector may act as deterrents for athletes engaging in offending and risky behaviours. Ultimately, this could aid in the creation of a new type of sporting culture, breaking the cycle of the current sport climate.

7.4.4 Role Models

Positive role models and increased responsibilities were found to reduce and prevent athlete engagement in risky behaviours. Crosset (1999) found that more experienced teammates can influence younger athletes in their involvement in risky behaviours, and it has also been found that peers have a large influence of athlete risky behaviour (e.g. Blomfield & Barber, 2010; Vest & Simpkins, 2013). One approach could be to encourage senior athletes to engage in peer mentoring of younger athletes. In doing so, this would increase responsibilities for senior athletes, empower them, and provide a stronger positive role model presence for younger athletes. This type of intervention could contribute to the reduction of incidences of risky behaviour in existing athletes as well as future generations. Additionally, the results show that coaches can act as role models to reduce risky behaviours and increase prosocial behaviours, similar to previous studies (e.g. Beam, Chen & Greenberger, 2002; Jowett & Cockerill, 2003; Nucci & Kim, 2005; Rutten et al., 2007). Therefore, coaches should be encouraged to act as positive role models for their athletes, both within sport and outside of the sporting context. This could be done through the encouragement of fair play values and attitudes, which have been associated with on-field prosocial behaviours (Stephens & Bredemeier, 1996) and fewer antisocial behaviours (Rutten et al., 2008), whilst negative attitudes to fair play values have been found to be associated to behaviours such as aggression (Junge et al., 2000).

7.5 Limitations and Direction for Future Research

Although there are some valuable findings and contributions of the present work, there are a number of limitations which could be addressed by future research. The thesis is exploratory and so naturally there are a number of areas which require further development. Additionally, many of the implications of the thesis could be further developed and enhanced through further studies. Many of the study-specific limitations and directions for future research are discussed within their respective empirical chapters (Chapters 4-6). However, some of the more general issues which apply to the work as a whole are discussed below.

7.5.1 Sample

There were limitations for all of the sample types used across the empirical studies. Study One included a male-only elite athlete sample featuring a range of athletes across sports and countries. Despite the sample size being moderately large, no females were included. This was partly due to the method of data collection using a search strategy through media sources. In future research, it would be beneficial to use a mixed sample, or a female-only sample, to distinguish if and how this alters the findings, to enable comparisons to be made between male and female athlete behaviours, and to ensure applicability of the results to the elite athlete population as a whole.

Although Study Two involved mixed gender samples, the sample size of the athlete population was relatively small, particularly female athletes. There was also a much higher number of female participants from the general population. Additionally, due to the length of the questionnaire, not all of the participants completed the entire questionnaire, meaning that the frequency of participant responses depleted as the questionnaire progressed. Future research should include a larger and more proportionate sample of both athletes and the general population with a more equal gender divide. This would ensure that the findings were more representative of the samples and more reliable comparisons could be conducted.

Study Three included a moderate sample size for qualitative research methods, with participants recruited until saturation. The sample was made up of male-only athletes from various sports. However, all but one participant played sport which involved some level of contact. Although similar findings were found within the non-contact athlete as within the contact athlete interviews, further qualitative research should be conducted on a more mixed

sample of athletes, both contact and non-contact. This could be carried out to distinguish any differences between sports which harbour varying levels of contact. In doing so, the findings would be more applicable to athletes across a wider variety of sports. Notably, the male-only sample was purposeful based on the findings of Study Two which suggested that male athletes engage in significantly higher risk-taking than female athletes. Despite this reasoning, future research could include a sample of female athletes to understand the differences between the personal experiences of male and female athletic involvement.

7.5.2 Methodological Design

The method of data collection for Study One relied on a search strategy, and inclusion and exclusion criterion through searches of secondary media sources. Although every effort was made to ensure reliability of news reports, not all data collected may be completely reliable due to the nature of the media. Additionally, the majority of the data collected regarded athlete offending behaviours rather than legal but risky behaviours, again, due to the nature of the media. One potential method for future research could include the distribution of self-report surveys for the elite athlete population to indicate which offending and risky behaviours they had engage in. In doing so, it would be possible to examine whether the findings corroborate the findings of the current work in terms of the statistical data and themes which were generated.

For Study Two, a number of scales were used from which the results should be approached with caution. Although efforts were made to select scales which were validated cross-culturally and across population types, future research should aim to further validate the scales within athlete samples. Furthermore, Study Two was a cross-sectional study, meaning that it is not possible to infer causality within the data, although the study has highlighted the predictor characteristics of athlete risk-taking which should be studied further in future studies. A fruitful direction for future research would also be to examine more closely to longitudinal relationships and interactions between personal characteristics associated with risk-taking in athletes. This could be achieved through both quantitative research methods similar to Study Two, and qualitative research methods, similar to Study Three. Through an improved understanding of general risk-taking tendencies in the athlete population, it may be possible to develop more effective interventions to reduce and prevent athlete problem behaviours, such as those identified in Study One.

7.5.3 Cultural Differences

Although the research has included athletes from a variety of countries, the majority of the samples comprised of individuals from Western countries, particularly the US and the UK. Study Three, for instance, had only participants originally from the UK and Ireland, despite some of the sample living in other countries at the time of data collection. The research as a whole did not provide significant cultural diversity to successfully distinguish cultural differences. Future research should consider cultural differences between athletes to explore whether athletes from varying countries have similar experiences within the sporting environment, and whether these experiences have similar impacts to off-field behaviour.

7.5.4 Individual vs Team Sports

The present work did not examine the differences between team and individual sports effectively. This was, in part, due to complexity in deciphering the differences between sports which could be classed as individual or team sports. Although some sports included in the sample would typically be classed as individual sports, it is often the case that those athletes will spend time training as teams with other athletes at their level, such as golf and Mixed Martial Arts. This point was mentioned in the interview with Participant One for Study Three. In these cases, although not competing in teams, it could be assumed that the team sport environment would have similar impacts on individual sport athlete behaviour to those who train and compete within teams. To test this, it would be valuable for future studies to include a multitude of athletes from a range of typically individual sports as well as team sports. This would enable researchers to identify the magnitude that the influence of team sports can have on athlete risky behaviour when compared to those who predominantly train and compete individually.

7.6 Conclusion

The thesis aimed to deliver a collection of studies exploring the issues surrounding athlete risky behaviour and the impact of athletic involvement. The research offers a deeper understanding into the most common risky behaviours, the differences between athlete and

general population risk-taking tendencies, and the factors which influence athlete risky behaviour. Through this exploratory research, the thesis offers a number of valuable findings, practical implications, and directions for future research. Hitherto, the current state of the literature has focused predominantly on specific risky behaviours of adolescent and collegiate athletes and has generally failed to adequately examine a range of athlete characteristics and behaviours. Despite the volume of research which suggests that athletes can engage in heightened risk-taking, there has been a lack of focus on the most common problem behaviours, and the range of factors which can influence general risk-taking tendencies when compared to the general population. Additionally, there has been a lack of qualitative research which has investigated the impact of athletic involvement and the personal experiences of athletes with regards to influences and inhibitive factors of athlete risky behaviour. The current thesis therefore provides the foundations for an innovative type of research in the field of athlete risky behaviours.

The three empirical studies were developed consecutively, starting more generally with an exploratory investigation of historical cases, then proceeding to more specific factors of risky behaviour, and finally using qualitative research methods to collect data based on the personal experiences of athletes. Firstly, Study One revealed that sexual, addictive, and violent behaviours were the most common types of problem behaviours within a sample of historical athlete behaviour cases. Interventions for these types of behaviours within the elite athlete population should take priority, particularly sexual offences by a single perpetrator, which was the most common behaviour featured in almost half of the cases. Additionally, heavy recreational alcohol use, and physical assault by a single perpetrator were the joint second most common behaviours, present in almost a quarter of the cases.

Study Two investigated specific factors relating to athlete general risk-taking. The findings suggest that athletes have a significantly higher tendency to engage in risk-taking than the general population, for all DOSPERT risk domains except for Social Risk. When split by gender, male athletes scored significantly higher than female athletes and the general population for all DOSPERT risk domains except for Social Risk. Additionally, male athletes scored significantly higher than both female athletes and the male general population for some personal characteristics which have previously been identified as predictor characteristics for risky behaviour, e.g. psychopathy. There were a number of significant associations found between predictor characteristics and the five risk domains. The study focused on personal characteristics and many interesting findings were discovered. However, the results also

suggested that environmental factors may also contribute towards heightened tendencies for athlete risk-taking, influencing Study Three.

The qualitative chapter, Study Three, offers support for the previous findings of Study One and Two, whilst providing novel perspectives through first-hand accounts. The study allowed for more detailed data collection surrounding issues which has previously been explored regarding personal characteristics and individual differences and explored environmental factors from the sporting context and athlete-specific experiences. A number of influences of risky behaviour were also offered which were not explored in the preceding quantitative studies. It was found that individual differences such as addictive personalities, heightened confidence, sensation-seeking, and socioeconomic background were all listed as influences of risky behaviour. Additionally, a number of environmental influences were also found to increase athlete risky behaviour such as group pressures and peer influence, masculine sporting environment and engrained culture, power and status, and boredom due to downtime in sports. However, participants also offered various methods to reduce rates of athlete risky behaviour such as increased responsibilities, the presence of positive role models, understanding the consequences of behaviours, and the use of behaviour management skills.

The importance of the thesis lies in the uniqueness of the samples, given that previous studies into athlete risky behaviour have predominantly focused on adolescent and collegiate athletes. Although literature has stated that adolescent athlete risky behaviour is a problem, elite and general athlete behaviour has generally been neglected, possibly due to difficulty in accessing samples. This research has aimed to address this through accessing a sample of elite athletes. Furthermore, elite athlete behaviour continues to be a well-documented problem in the media. Consistent with the Social Learning Theory, athletes, particularly those who are elite, have the potential to influence the general population due to exorbitant media coverage and celebrity status. In addition, well-established athletes can act as role models for aspiring athletes and so, without intervention, risky behaviours may repeat through generations due to long-standing social norms. Coaches and sporting bodies may benefit from the findings of the research, especially with regards to the most common types of risky behaviours and the sport environmental influences of risky behaviours. The findings may educate those aiming to target behavioural issues in the athlete population and promote prosocial behaviours. Of course, there are limitations to the applicability of the findings due to the novelty of the research, however it is anticipated that this work will act as a starting point with which to develop further studies into the area of research. Therefore, future research is needed to develop a more advanced

understanding of these issues and bringing attention to this area of research may inspire other academics and practitioners to investigate the area further.

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APPENDICES

Appendix A: Ethical Approval

ed Revision to previously approved SREP Application - Rebecca Prince -
VED - 'Investigating Offending and Risky Behaviour of Elite Athletes -
016/047_Rev2_040918

Dear Rebecca,

Dr Warren Gillibrand, Acting Deputy Chair of SREP, has asked me to confirm that the proposed revision to your previously approved SREP Application as detailed above has been **approved**.

With best wishes for the success of your research project.

Regards,

Kirsty
(on behalf of Dr Warren Gillibrand, Acting Deputy Chair of SREP)

Kirsty Thomson
Research Administrator

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Appendix B: Content Dictionary

Addictive Behaviours

Adultery: This variable was coded as present if it was reported that an athlete voluntarily engaged in a sexual affair with at least one other person whilst married or in a committed relationship.

Alcohol addiction: This variable was coded as present if an athlete was reported to have been addicted to alcohol.

Bankruptcy: This variable was coded as present if an athlete was reported to have become bankrupt as a result of exorbitant spending and/or gambling.

Driving offences: This variable was coded as present when it was reported that an athlete had engaged in illegal driving behaviours including speeding, driving without a license, driving without insurance, careless driving, driving against traffic, going through a red traffic light, parking offences, and leaving the scene of a traffic accident. It was not coded as present in the instance of driving under the influence of alcohol and/or drugs (due to it being a separate variable) unless any of the above offences were also present.

Driving under the influence: This variable was coded as present when it was reported that an athlete had been found by the police to have been driving whilst over the legal driving alcohol limit, or under whilst under the influence of any drug which is illegal and/or affects the individual's ability to drive.

Drug addiction: This variable was coded as present if it was reported that an athlete had been addicted to any type of drugs.

Drug overdose: This variable was scored as present when the athlete was reported to have had a drug overdose, either knowingly or accidentally.

Endangerment: This variable was scored as present if an athlete was reported to have behaved in a way which resulted in there being a significant risk of serious physical injury to another person. This includes cases where they did not necessarily intend to put another person at risk of harm, but they did not consider the potential consequences of their actions and showed disregard. This also includes when the athlete was reportedly found to have placed a child in a potentially harmful situation through either misconduct or negligence.

Failure to comply with authority: This variable was coded as present if an athlete was reported to have resisted arrest, failed to identify themselves for police, or failed to stop for police when ordered to do so. The variable also included athletes who were reported to have violated court orders such as failure to appear in court, failure to register as a sex offender, failure to pay legal fees or fines, perjury/obstruction of justice, and violation of bail or probation conditions.

Gambling: This variable was coded as present when it was reported that an athlete had been addicted to gambling or had engaged in risky gambling behaviours.

Indecent exposure: This variable was coded as present if it was reported that an athlete had intentionally exposed their genitals to others in public.

Possession of drugs/paraphernalia for personal use: This variable was coded as present if an athlete was reported to have been found with illicit drugs and/or drug paraphernalia in their possession for personal use.

Possession of drugs with intent to supply: This variable was coded as present if an athlete was reported to have been found with illicit drugs in their possession with intent to supply to others.

Possession of illegal documents: This variable was scored as present when the athlete was reported to have been in possession of fraudulent documents (such as a fake driving license), if they had an invalid visa, or if they were found in possession of illegal pornographic images.

Soliciting sex: This variable was coded as present if it was reported that an athlete had offered another person money to have sex with them or had paid to have sex with sex workers.

Violation of sporting rules: This variable was coded as present if an athlete was reported to have violated the rules of the sporting organisation which they belong to, either by failing drug tests, cheating drug tests, placing bets which are not allowed or by being involved in fixing a sporting event in order for themselves and/or others to gain financially.

Sexual Behaviours

Child sexual offences: This variable was scored as present if it was reported that an athlete had engaged in indecent or sexual activities with a child or adolescent under the age of legal consent, including both victims who were related and not related to the athlete.

Consensual group sex: This variable was coded as present if an athlete had been reported to have engaged in consensual sex with two or more other people during the same incident.

Gang rape/sexual assault: This variable was scored as present if when it was reported that the athlete had been involved in a group of one or more other people that engaged in non-consensual sexual intercourse/sexual activity with the same victim during the same incident. This variable was also coded as present when the athlete was the only person who raped/sexually assaulted the victim but there were other people present who enabled the rape/sexual assault and did not try to stop it. This was also scored as present when the athlete was involved in the group, did not rape/sexually assault the victim, but did nothing to stop the others in the group from raping/sexually assaulting the victim.

Heavy recreational alcohol use: This variable was scored as present if an athlete was reported to have engaged in heavy recreational alcohol use and binge drinking.

Involvement in initiation rituals: This variable was coded as present if athlete was reported to have subjected another person to a behaviour or take in order for them to be accepted into the group.

Sexual offences by a single perpetrator: This variable was coded as present if an athlete was reported to have engaged in non-consensual sexual assault alone with another person. This also includes attempted rape/sexual assault, aggravated sexual assault, and sexual exploitation.

Supplying alcohol to minors: This variable was scored as present if an athlete was reported to have knowingly supplied alcohol to another person who was under the legal age limit.

Trespassing/forced entry: This variable was scored as present if an athlete had been reported to have been on another person's property without the owner's consent, either with or without force.

Underage drinking: This variable was scored as present if it had been reported that the athlete willingly drank alcohol when they were under the legal age limit.

Use of/involvement in non-consensual X-rated photos/videos: This variable was scored as present if it had been reported that the athlete photographed or videotaped a non-consensual sexual act but were willingly involved themselves.

Vandalism: This variable was coded as present when an athlete was reported to have intentionally damaged public or private property.

Violent Behaviours

Acquisitive crimes: This variable was coded as present if an athlete was reported to have committed burglary, robbery or theft.

Domestic abuse: This variable was coded as present if an athlete had been reported to have been violent or abusive within the home, specifically towards a spouse or partner, including emotional abuse as well as physical violence.

Drunk and disorderly: This variable was scored as present if an athlete had been reported to have created a public disturbance whilst under the influence of alcohol.

False imprisonment: This variable was coded as present if an athlete had been reported to have held another person captive against their will and without legal authority. This includes kidnap, abduction, enslavement, and preventing an individual from leaving a situation against their will.

Group physical assault: This variable was coded as present if an athlete had been reported to have been involved in a group of one or more other individuals that assaulted a person or people within the same incident.

Harassment: This variable was coded as present if an athlete was reported to have engaged in behaviour which caused annoyance or intimidation to a specific individual or group over an extended period of time. This also includes being a member of a group harassing others, and sexual harassment.

Hate crime: This variable was coded as present if an athlete was reported to have directed verbal or physical abuse at a particular individual motivated by prejudices. This includes incidents which have occurred in person and through social media.

Involvement in fights/brawls: This variable was coded as present if an athlete had been reported to have been involved in fights or brawls. This was also scored as present if an athlete encouraged others to engage in fights.

Murder/manslaughter: This variable was coded as present if an athlete was reported to have unlawfully killed another person, including cases which were intentional and accidental.

Physical assault by a single perpetrator: This variable was coded as present if it had been reported that an athlete had physically attacked another person alone with intent to do bodily harm.

Possession/use of a weapon: This variable was scored as present if an athlete was reported to have been found in possession of a weapon or had used a weapon against another person, either with intent to threaten or intent to wound.

Recreational drug use: This variable was scored as present if it had been reported that an athlete had used illicit drugs recreationally.

Urinating on a person or property: This variable was coded as present if it was reported that an athlete had purposefully urinated on another person or the property of another person without their consent.

Use of threats: This variable was scored as present if an athlete was reported to have threatened another person, either through displaying threatening behaviour or using threatening language. This also included the use of extortion as a threat.

Appendix C: Study Two Materials

Appendix C1: Participant Information Sheet for the Athlete Population

Dear participant,

You are being invited to complete this questionnaire which has been created in order to collect information on elite athletes; it is part of a large project being run by Miss Rebecca Prince, Dr John Synnott and Dr Maria Ioannou from the University of Huddersfield, which aims to investigate the risk-taking behaviours of elite athletes. Your participation will contribute to designing education programs for young elite athletes.

It is your decision whether or not you take part in this questionnaire. If you choose to complete the questionnaire, then you will be required to give your consent before gaining access to the questionnaire. The questionnaire will take approximately 30 minutes of your time to complete and you also have the option of saving your progress and completing the rest of the questions later if you need to. However, please bear in mind that this must be completed within 7 days of commencing the questionnaire.

The responses you give will remain completely confidential, with no indication of who has completed the survey. You will remain anonymous at all times. This is not just for your own protection but also so you feel comfortable answering these questions as honestly and openly as possible. As the responses will remain anonymous, it will not be possible to remove your individual responses once the questionnaire is completed and submitted and therefore if you wish to withdraw your responses then please do not submit them. You have the option to withdraw at any point before submission and also at the end of the process.

Only the named researchers will have access to the data from these questionnaires. Furthermore, the information will be stored on encrypted computers and storage devices. This information will be stored in secure conditions at the University of Huddersfield for a maximum of up to 10 years. However, the questionnaire will not ask you to provide any personal identifiable information so it will not be possible to identify you from your responses.

The current questionnaire is part of a project which is being conducted at the International Research Centre of Investigative Psychology at the University of Huddersfield. Aspects of the data will be used for the development of a PhD and the results will be published as part of a doctoral thesis. The work will also be disseminated through articles, academic journals, and conference presentations. This will not affect your anonymity in any way.

Thank you for your time and assistance – without your co-operation it would not be possible to conduct quality research in the field.

If you have any questions or concerns during this research, please do not hesitate to contact the researchers:

Rebecca Prince
Rebecca.prince@hud.ac.uk

Dr John Synnott
j.p.synnott@hud.ac.uk

Dr Maria Ioannou
m.ioannou@hud.ac.uk

Appendix C2: Participant Information Sheet for the General Population

Dear participant,

You are being invited to complete this questionnaire which has been created in order to collect information on risk taking behaviours; it is part of a PhD project being run by Rebecca Prince from the University of Huddersfield under the supervision of Dr John Synnott and Dr Maria Ioannou. It aims to investigate the risk-taking behaviours within the general population. Your participation will contribute to a better understanding of these behaviours.

It is your decision whether or not you take part in this questionnaire. If you choose to complete the questionnaire, then you will be required to give your consent before gaining access to the questionnaire. The questionnaire will take approximately 30 minutes of your time to complete and you also have the option of saving your progress and completing the rest of the questions later if you need to. However, please bear in mind that this must be completed within 7 days of commencing the questionnaire.

The responses you give will remain completely confidential, with no indication of who has completed the survey. You will remain anonymous at all times. This is not just for your own protection but also so you feel comfortable answering these questions as honestly and openly as possible. As the responses will remain anonymous, it will not be possible to remove your individual responses once the questionnaire is completed and submitted and therefore if you wish to withdraw your responses then please do not submit them. You have the option to withdraw at any point before submission and also at the end of the process.

Only the named researchers will have access to the data from these questionnaires. Furthermore, the information will be stored on encrypted computers and storage devices. This information will be stored in secure conditions at the University of Huddersfield for a maximum of up to 10 years. However, the questionnaire will not ask you to provide any personal identifiable information so it will not be possible to identify you from your responses.

The current questionnaire is part of a project which is being conducted at the International Research Centre of Investigative Psychology at the University of Huddersfield. The data will be used for the development of a PhD and the results will be published as part of a doctoral

thesis. The work will also be disseminated through articles, academic journals, and conference presentations. This will not affect your anonymity in any way.

Thank you for your time and assistance – without your co-operation it would not be possible to conduct quality research in the field.

If you have any questions or concerns during this research, please do not hesitate to contact the following researchers:

Rebecca Prince
Rebecca.prince@hud.ac.uk

Dr John Synnott
j.p.synnott@hud.ac.uk

Dr Maria Ioannou
m.ioannou@hud.ac.uk

Appendix C3: Online Consent Form

It is important to read, fully understand and sign the consent form. Please be aware that your participation in this research is entirely voluntary and by signing the declaration, you are agreeing with the following statements. If you require any further information, please do not hesitate to contact the researcher.

1. I have been fully informed of the nature and aims of this research.
2. I consent to taking part in this research.
3. I understand that I have the right to withdraw from the research at any time without explanation.
4. I understand that the information collected will be kept in secure conditions at the University of Huddersfield for a maximum of up to 10 years.
5. I understand that only the researchers will have access to the information provided.
6. I understand that I will not be asked to provide any personal identifiable information so it will not be possible for anyone to identify me from my responses.

If you agree to the above statements, please click 'I agree' to indicate that you give consent to the statements and you wish to begin the questionnaire.

Appendix C4: Online Questionnaire

Athlete Population Demographic Questions

1. Age? _____
2. Gender?

Male
Female
Other _____
3. What is your country of birth? _____
4. What is your current country of residence? _____
5. How would you describe your ethnicity? _____
6. What is your marital status? (please tick option which applies)
Single (never married)
Co-habiting
Married (and not separated)
Widowed
Separated
Divorced
7. How would you describe your sexuality?
Heterosexual
Homosexual
Bisexual
Other (please specify) _____
Prefer not to say
8. What are your religious beliefs?
Christianity
Islam
Sikhism
Judaism
Buddhism
No religion
Other (please specify) _____
9. What is your highest academic achievement at present?
Equal or lower than high school
College/sixth form
University (undergraduate degree)

University (postgraduate degree)
University (PhD/doctorate)
Other (please specify) _____

10. Are you currently an active athlete?

Yes

No

11. What sport do/did you play? _____

12. At what level do/did you play this sport?

Professional

Semi-professional

Amateur athlete

College/university athlete on scholarship

College/university athlete not on scholarship

13. Do/did you get paid to play sport?

Yes

No

14. If yes, is/was the pay you receive(d):

Salary for playing sport

Match fees only

Expenses only (travel, etc.)

Other (please state) _____

15. If yes, is/was sport your primary income?

16. Have you played to the highest level in your sport?

General Population Demographic Questions

1. Age? _____

2. Gender?

Male

Female

Other _____

3. What is your country of birth? _____

4. What is your current country of residence? _____

5. How would you describe your ethnicity? _____

6. What is your marital status? (please tick option which applies)
- Single (never married)
 - Co-habiting
 - Married (and not separated)
 - Widowed
 - Separated
 - Divorced
7. How would you describe your sexuality?
- Heterosexual
 - Homosexual
 - Bisexual
 - Other (please specify) _____
 - Prefer not to say
8. What are your religious beliefs?
- Christianity
 - Islam
 - Sikhism
 - Judaism
 - Buddhism
 - No religion
 - Other (please specify) _____
9. What is your highest academic achievement at present?
- Equal or lower than high school
 - College/sixth form
 - University (undergraduate degree)
 - University (postgraduate degree)
 - University (PhD/doctorate)
 - Other (please specify) _____
10. What is your personal annual income?
- Under £40,000
 - £40,000 - £59,999
 - £60,000 - £99,999
 - £100,000 - £199,999
 - £200,000 - £499,999
 - £500,000 or over
11. What is your current occupation? _____
12. Do you have any involvement in sport? If so, please specify your involvement.
- Yes _____
- No _____

Domain-Specific Risk-Taking (Adult) Scale – Risk Taking (Blais, & Weber, 2006)

For each of the following statements, please indicate the **likelihood** that you would engage in the described activity or behavior if you were to find yourself in that situation. Provide a rating from *Extremely Unlikely* to *Extremely Likely*, using the following scale:

1	2	3	4	5	6	7
Extremely Unlikely	Moderately Unlikely	Somewhat Unlikely	Not Sure	Somewhat Likely	Moderately Likely	Extremely Likely

1. Admitting that your tastes are different from those of a friend. (S)
2. Going camping in the wilderness. (R)
3. Betting a day's income at the horse races. (F/G)
4. Investing 10% of your annual income in a moderate growth diversified fund. (F/I)
5. Drinking heavily at a social function. (H/S)
6. Taking some questionable deductions on your income tax return. (E)
7. Disagreeing with an authority figure on a major issue. (S)
8. Betting a day's income at a high-stake poker game. (F/G)
9. Having an affair with a married man/woman. (E)
10. Passing off somebody else's work as your own. (E)
11. Going down a ski run that is beyond your ability. (R)
12. Investing 5% of your annual income in a very speculative stock. (F/I)
13. Going whitewater rafting at high water in the spring. (R)
14. Betting a day's income on the outcome of a sporting event (F/G)
15. Engaging in unprotected sex. (H/S)
16. Revealing a friend's secret to someone else. (E)
17. Driving a car without wearing a seat belt. (H/S)
18. Investing 10% of your annual income in a new business venture. (F/I)
19. Taking a skydiving class. (R)
20. Riding a motorcycle without a helmet. (H/S)
21. Choosing a career that you truly enjoy over a more secure one. (S)
22. Speaking your mind about an unpopular issue in a meeting at work. (S)
23. Sunbathing without sunscreen. (H/S)
24. Bungee jumping off a tall bridge. (R)
25. Piloting a small plane. (R)
26. Walking home alone at night in an unsafe area of town. (H/S)
27. Moving to a city far away from your extended family. (S)
28. Starting a new career in your mid-thirties. (S)
29. Leaving your young children alone at home while running an errand. (E)
30. Not returning a wallet you found that contains \$200. (E)

Note. E = Ethical, F = Financial, H/S = Health/Safety, R = Recreational, and S = Social.

Sexual Sensation Seeking Scale – Revised (Kalichman, Adair, Rompa, Multhauf, Johnson & Kelly, 1994)

In the following section you will be given statements. For each statement, please select how much you believe it relates to you. The responses will range from 'not at all like me' (1) to 'very much like me' (4).

1. I like wild “uninhibited” sexual encounters.
2. The physical sensations are the most important thing about having sex.
3. I enjoy the sensation of intercourse without a condom.
4. My sexual partners probably think I am a “risk taker”.
5. When it comes to sex, physical attraction is more important to me than how well I know the person.
6. I enjoy the company of “sensual” people.
7. I enjoy watching “X-rated” videos.
8. I have said things that were not exactly true to get a person to have sex with me.
9. I am interested in trying out new sexual experiences.
10. I feel like exploring my sexuality.
11. I like to have new and exciting sexual experiences and sensations.

Additional sexual behaviour questions

In this section you will be asked a question. Please select 'yes' or 'no'.

1. Have you ever paid for sex?
2. Have you ever engaged in group sex?
3. Have you ever recorded yourself having sex?
4. Have you ever sent an explicit picture of yourself to another person?
5. Have you ever sent an explicit picture of someone else to another person without their consent?
6. Have you ever cheated on a partner?

Personal Sense of Power (Anderson, John & Keltner, 2012)

In the following section you will be given a statement. Please respond to each question depending on how much you agree or disagree with the statement. The responses will range from 'disagree strongly' (1) to 'agree strongly' (7).

1. I can get the opposite sex to listen to what I say.
2. My wishes do not carry much weight with the opposite sex.
3. I can get the opposite sex to do what I want.
4. Even if I voice them, my views have little sway with the opposite sex.
5. I think I have a great deal of power over the opposite sex.
6. My ideas and opinions are often ignored by the opposite sex.
7. Even when I try, I am not able to get my way with the opposite sex.
8. If I want to, I get to make the decisions when with the opposite sex.
9. I can get my friends to listen to what I say.

10. My wishes do not carry much weight with my friends.
11. I can get my friends to do what I want.
12. Even if I voice them, my views have little sway with my friends.
13. I think I have a great deal of power over my friends.
14. My ideas and opinions are often ignored by my friends.
15. Even when I try, I am not able to get my way with my friends.
16. If I want to, I get to make the decisions when with my friends.

Personal Attributes Questionnaire (Spence, Helmreich & Stapp, 1974)

The following set of questions are about yourself and are rated on a scale of A - E, with A being one view and E being the opposite view. Please select the response on the scale which you believe applies to you.

1. Not at all aggressive A.....B.....C.....D.....E Very aggressive
2. Not at all independent A.....B.....C.....D.....E Very independent
3. Not at all emotional A.....B.....C.....D.....E Very emotional
4. Very submissive A.....B.....C.....D.....E Very dominant
5. Not at all excitable in a major crisis A.....B.....C.....D.....E Very excitable in a major crisis
6. Very passive A.....B.....C.....D.....E Very active
7. Not at all able to devote self completely to others A.....B.....C.....D.....E Able to devote self completely to others
8. Very rough A.....B.....C.....D.....E Very gentle
9. Not at all helpful to others A.....B.....C.....D.....E Very helpful to others
10. Not at all competitive A.....B.....C.....D.....E Very competitive
11. Very home oriented A.....B.....C.....D.....E Very worldly
12. Not at all kind A.....B.....C.....D.....E Very kind
13. Indifferent to others= approval A.....B.....C.....D.....E Highly needful of others' approval
14. Feelings not easily hurt A.....B.....C.....D.....E Feelings easily hurt
15. Not at all aware of feelings of others A.....B.....C.....D.....E Very aware of feelings of others
16. Can make decisions easily A.....B.....C.....D.....E Has difficulty making decisions
17. Gives up very easily A.....B.....C.....D.....E Never gives up easily
18. Never cries A.....B.....C.....D.....E Cries very easily
19. Not at all self-confident A.....B.....C.....D.....E Very self-confident

20. Feels very inferior A.....B.....C.....D.....E Feels very superior
21. Not at all understanding of others A.....B.....C.....D.....E Very understanding of others
22. Very cold in relations with others A.....B.....C.....D.....E Very warm in relations with others
23. Very little need for security A.....B.....C.....D.....E Very strong need for security
24. Goes to pieces under pressure A.....B.....C.....D.....E Stands up well under pressure

Self-Report Psychopathy III- short form (SRP-III-SF; Paulhus, Neumann, & Hare, in press)

In the following section you will be given statements. Please selected how much you agree with the statements in relation to yourself. The responses range from 'disagree strongly' to 'agree strongly'.

1. I'm a rebellious person. _____
2. I have never been involved in delinquent gang activity. _____
3. Most people are wimps. _____
4. I've often done something dangerous just for the thrill of it. _____
5. I have tricked someone into giving me money. _____
6. I have assaulted a law enforcement official or social worker. _____
7. I have pretended to be someone else in order to get something. _____
8. I like to see fist-fights. _____
9. I would get a kick out of 'scamming' someone. _____
10. It's fun to see how far you can push people before they get upset. _____
11. I enjoy doing wild things. _____
12. I have broken into a building or vehicle in order to steal something or vandalize_____
13. I don't bother to keep in touch with my family anymore. _____
14. I rarely follow the rules. _____
15. You should take advantage of other people before they do it to you. _____
16. People sometimes say that I'm cold-hearted. _____
17. I like to have sex with people I barely know. _____
18. I love violent sports and movies. _____
19. Sometimes you have to pretend you like people to get something out of them. _____
20. I was convicted of a serious crime. _____

21. I keep getting in trouble for the same things over and over. _____
22. Every now and then I carry a weapon (knife or gun) for protection. _____
23. You can get what you want by telling people what they want to hear. _____
24. I never feel guilty over hurting others. _____
25. I have threatened people into giving me money, clothes, or makeup. _____
26. A lot of people are “suckers” and can easily be fooled. _____
27. I admit that I often “mouth off” without thinking. _____
28. I sometimes dump friends that I don’t need any more. _____
29. I purposely tried to hit someone with the vehicle I was driving. _____

Zuckerman-Kuhlman Personality Questionnaire Cross-Cultural 50-item version (ZKPQ-50-CC; Aluja, Rossier, García, Angleitner, Kuhlman, & Zuckerman, 2006)

In the following section you will be given a set of statements. Please respond either 'true' or 'false' depending on whether you believe these statements apply to you.

- 1 T F I do not like to waste time just sitting around and relaxing.
- 2 T F I When I get mad, I say ugly things.
- 3 T F It's natural for me to curse when I am mad.
- 4 T F I do not mind going out alone and usually prefer it to being out in a large group.
- 5 T F I lead a busier life than most people.
- 6 T F I often do things on impulse.
- 7 T F I almost never feel like I would like to hit someone.
- 8 T F I spend as much time with my friends as I can.
- 9 T F My body often feels all tightened up for no apparent reason.
- 10 T F I frequently get emotionally upset.
- 11 T F If someone offends me, I just try not to think about it.
- 12 T F I like to be doing things all of the time.
- 13 T F I would like to take off on a trip with no pre-planned or definite routes or timetables.
- 14 T F I tend to be oversensitive and easily hurt by thoughtless remarks and actions of others.
- 15 T F I do not need a large number of casual friends.

- 16 T F I can enjoy myself just lying around and not doing anything active.
- 17 T F I enjoy getting into new situations where you can't predict how things will turn out.
- 18 T F I am easily frightened.
- 19 T F If people annoy me, I do not hesitate to tell them so.
- 20 T F I tend to be uncomfortable at big parties.
- 21 T F I do not feel the need to be doing things all of the time.
- 22 T F I sometimes feel panicky.
- 23 T F At parties, I enjoy mingling with many people whether I already know them or not.
- 24 T F I sometimes like to do things that are a little frightening.
- 25 T F When on vacation I like to engage in active sports rather than just lie around.
- 26 T F I'll try anything once.
- 27 T F I often feel unsure of myself.
- 28 T F I would not mind being socially isolated in some place for some period of time.
- 29 T F I like to wear myself out with hard work or exercise.
- 30 T F I would like the kind of life where one is on the move and travelling a lot, with lots of change and excitement.
- 31 T F I often worry about things that other people think are unimportant.
- 32 T F When people disagree with me, I cannot help getting into an argument with them.
- 33 T F Generally, I like to be alone so I can do things I want to do without social distractions.
- 34 T F I sometimes do "crazy" things just for fun.
- 35 T F I have a very strong temper.
- 36 T F I like to be active as soon as I wake up in the morning.
- 37 T F I can't help being a little rude to people I do not like.
- 38 T F I am a very sociable person.
- 39 T F I prefer friends who are excitingly unpredictable.
- 40 T F I often feel like crying sometimes without a reason.
- 41 T F I like to keep busy all the time.
- 42 T F I often get so carried away by new and exciting things and ideas that I never think of possible complications.
- 43 T F I don't let a lot of trivial things irritate me.

- 44 T F I am always patient with others even when they are irritating.
- 45 T F I usually prefer to do things alone.
- 46 T F I often feel uncomfortable and ill at ease for no real reason.
- 47 T F I probably spend more time than I should socializing with friends.
- 48 T F When I do things, I do them with lots of energy.
- 49 T F I like "wild" uninhibited parties.
- 50 T F When people shout at me, I shout back.

Comprehensive Alcohol Expectancy Questionnaire (CAEQ; Demmel & Hagen, 2003)

The following section gives you a set of statements. Please respond depending on how much you believe the statement applies to you. The responses range from '1 - not at all' to '5 - definitely'.

- 1 I am more relaxed and more at ease socially
- 2 I am in high spirits
- 3 I am not so shy anymore
- 4 It's easier for me to approach other people
- 5 Somehow I think everything is funnier – at any rate, I laugh more
- 6 I am more likely to come out of my shell
- 7 My self-confidence increases
- 8 I am more daring
- 9 I am more talkative
- 10 I am less self-conscious
- 11 I can get to know people more easily
- 12 I am more likely to flirt
- 13 I can have more fun at parties
- 14 I am full of energy and thirsting for action
- 15 I am funnier
- 16 I am more prepared to take risks
- 17 I start making myself the center of attention
- 18 It doesn't matter as much anymore what people think of me
- 19 I feel closer to other people
- 20 I can switch my mind off better

- 21 I am not so tensed up anymore
- 22 I can forget about my problems and worries
- 23 Any pain that I have eases greatly
- 24 I am not as tense anymore
- 25 I can bear pain more easily
- 26 I am more tranquil
- 27 I can fall asleep better
- 28 I no longer feel so rushed or under time pressure
- 29 I can cool off faster when I'm angry
- 30 I have difficulty concentrating
- 31 I can no longer follow a conversation very well
- 32 I become sluggish
- 33 I can't think clearly anymore
- 34 I get tired
- 35 I behave clumsily
- 36 I feel listless
- 37 I react more slowly than usual
- 38 I have difficulty judging situations correctly
- 39 I feel dazed and dizzy
- 40 it is harder for me to think about knotty problems
- 41 I am less productive
- 42 I feel sick to my stomach
- 43 I am irritable and hotheaded
- 44 I get aggressive more quickly
- 45 I am more likely to pick a fight
- 46 I lose my temper more quickly and fly into rages
- 47 Sex is more intense
- 48 I enjoy sex even more
- 49 I am in a romantic mood
- 50 I am more emotional
- 51 My sexual desire increases

Appendix C5: Online Debrief Sheet

Thank you for taking the time to complete this questionnaire. Your participation is greatly appreciated.

Your responses from this questionnaire will go towards very important research which will benefit the sporting community.

If you would like further information about the study or you have any concerns, please do not hesitate to contact the following researcher:

Rebecca Prince:
Rebecca.prince@hud.ac.uk

Supervisors:

Dr John Synnott:
j.p.synnott@hud.ac.uk

Dr Maria Ioannou:
m.ioannou@hud.ac.uk

If there are any issues that you experienced that upset you or made you uncomfortable please contact the Samaritans on 116 123 (UK and ROI).

Please select 'Submit' if you wish to submit your completed questionnaire.

Appendix D: Study Three Materials

Appendix D1: Participant Information Sheet



Investigating Risky Behaviour of Elite Athletes

PARTICIPANT INFORMATION SHEET

You are being invited to take part in a study about the risk taking behaviours of elite athletes. Before you decide to take part 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. Please do not hesitate to ask the researcher (Rebecca Prince) if there is anything that is not clear or if you would like more information on the research. Her contact details are at the bottom of this letter.

What is the study about?

The purpose of this study is to understand the risk taking behaviours of elite athletes and why, as an elite athlete, you might be potentially at a higher risk of engaging in risky behaviours, and what the contributing factors behind such risk taking are.

Why I have been approached?

You have been asked to participate because you are considered to be (or previously have been) an elite athlete.

Do I have to take part?

It is your decision whether or not you take part. If you do choose to take part you will be asked to sign a consent form confirming your agreement to partake in the project. You will be free to withdraw at any time and without giving a reason during the interview stage, and up to 7

days after by contacting the researcher. The decision to withdraw at any time during the study or following completion of the study will not affect you in anyway.

What will I need to do?

If you agree to take part in the research the next stage will be for you to attend an interview which will last up to 1 hour. This can be done face-to-face or via Skype.

Will my identity be disclosed?

All information disclosed within the interview will be kept confidential. Once the interview is completed, the data will be anonymised, transcribed, and stored onto a database which will mean that it will be impossible to identify participants. Neither individual's names nor sports teams will be named within the thesis. Any direct quotes used from the interviews will include pseudonyms to protect your identity. The researchers are bound by the Code of Practice and Ethics of the British Psychological Society. This means that all material that comes into our possession will be securely treated in the strictest confidence. However, to reiterate, no identifying information will be available to the researchers so there is no concern about anybody being identified by their responses.

What will happen to the information?

All information collected from you will be kept secure and any identifying material, such as names will not be accepted in order to ensure anonymity. In fact at no stage will you be asked to confirm your name. It is anticipated that the research may, at some point, be published in a journal or report to your representative body. However, should this happen, your anonymity will be ensured throughout this process.

Who can I contact for further information?

If you require any further information about the research, please contact the lead researcher.

Name: Rebecca Prince

E-mail: rebecca.prince@hud.ac.uk

Telephone: +44 (0) 7772580863

Appendix D2: Consent Form



CONSENT FORM

Title of Research Project: Investigating the Risky Behaviour of Elite Athletes

It is important that you read, understand and sign the consent form. 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 your researcher.

I have been fully informed of the nature and aims of this research ☐

I consent to taking part in it ☐

I understand that I have the right to withdraw from the research at any time ☐
without giving any reason, including up to 7 days after the interview

I give permission for my words to be quoted (by use of pseudonym) ☐

I understand that the information collected will be kept in secure conditions ☐
for a period of 10 years at the University of Huddersfield

I understand that no persons other than the researchers will have access to the ☐
information provided.

I understand that my identity will be protected by the use of pseudonym in the ☐

report and that no written information that could lead to my being identified will be included in any report.

If you are satisfied that you understand the information and are happy to take part in this project please put a tick in the box aligned to each sentence and print and sign below.

Signature of Participant: _____ Print: _____ Date: _____	Signature of Researcher: _____ Print: _____ Date: _____
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Appendix D3: Interview Schedule

Demographic questions

What is the gender you most identify with?

What is your sexual orientation?

Where were you born?

Where do you live now?

What is your relationship status?

Age?

Age when first started competing/being involved with the sport?

Are you currently an active athlete?

Could you tell me a little bit about your sporting career? E.g. What sports do you currently play?
What sports have you engaged in previously? Have you competed? Anything else you would like to discuss?

What is the highest level you have got to in your sporting career?

Do you get paid to compete?

If so, is this your main source of income?

How many times have you competed?

Main questions

1. How does it feel to be part of a sports team/club?
2. Do you feel that your lifestyles interests outside of sport would be the same if you never participated in sport?
-E.g. like what you do in your spare time, hobbies, your relationships.
3. Do you believe that there are particular personality traits which athletes must adopt or have in order to be successful?
-If so, what are these?
4. Do you feel that your personality would be different if you never participated in sports?
5. Do you think your personality and attitudes influenced you to get into the sport or do you believe that sport has moulded your personality and attitudes in some way?
6. Is there a particular identity that your think successful athletes in your sport are sometimes expected to have?
-e.g. being tough, or a lady's man, etc.
7. Do you think that this identity is a result of partaking in the sport or do you think it is more of an identity that people adopt because they believe it is what is expected in the sport?
-Would you say you somewhat fit into this identity?
8. Have you ever felt/or know of teammates who may have been pressured to adopt this typical identity related to your sport?
9. If you had to describe some key differences in the attitudes and behaviours of (sports players) and individuals who do not play sports, what would they be?
-What about differences to individuals who play other sports?

10. What does risky behaviour mean to you?

-For the purpose of this study, risky behaviour refers to types of behaviours which aren't illegal but include risk taking (e.g. gambling large amounts of money, engaging in dangerous behaviour, unprotected sex, heavy alcohol use) but also risky behaviour in terms of illegal activity or socially or morally unacceptable behaviour (e.g. driving offences, drug taking, sexual offences, violent behaviour).

11. Would you describe yourself as a risk taker?

-In what way?

-What encourages this risky behaviour?

-What stops you from engaging in risky behaviour?

12. Do you think your risky behaviour is affected in any way when being part of a sports team/club?

13. Can you think of any particular occasions when you have behaved in a way which could be described as risky?

14. Do you think that athletes are generally bigger risk takers than the general population?

15. Is there anything else you would like to talk about/add?

Appendix D4: Debrief Sheet



Debrief Sheet

Investigating the Risky Behaviour of Elite Athletes

Thank you for your participation in the study. The following sheet will explain the whole study to you thoroughly.

Aims of the experiment:

The aim of the study is to investigate the risk taking behaviours of elite athletes. Athletes seem to be a higher risk group for partaking in behaviours which could be seen as risky, socially or morally unacceptable and so by conducting this study it enables an insight into why they may be at a higher risk than the rest of the population.

The majority of the previous research in the field has been conducted on collegiate athletes and so a gap in the research has been identified in the hope that this study can generate a clearer understanding of elite athletes at the top level of sport.

The interview:

The interviews are being conducted alongside an online questionnaire which was circulated to a sample of elite athletes. Semi-structured interviews mean that the researchers can collect richer and more detailed information from the target population.

Further Questions:

Should you have any further questions or if any aspect of the research has affected you in anyway, please contact the welfare officer at your club or player's union who will be able to offer assistance in putting you in contact with an appropriate service or organisation to help you with any concerns you may have. Alternatively, you can contact the researcher, Rebecca Prince, or her supervisors who will be able to provide you with a support organisation in your country of residence.

The research team would like to thank you for your giving your time up to help assist us in the data collection stage of this project. The information you have provided will help shape our understanding of risk taking in elite athletes.

Researcher

Rebecca Prince

E-mail: Rebecca.Prince@hud.ac.uk

Telephone: +44 (0) 7772580863

Supervisors

Dr John Synnott

Email: j.p.synnott@hud.ac.uk

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