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Intergenerational Continuity in Offending: An Approach to the
Phenomenon in the Maltese Islands

Janice Formosa Pace

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

December 2014

Abstract

This study explores the concentration of convictions in Maltese families through a study of all inmates interned at the prison setting, Corradino Correctional Facility (CCF), between 1950 and 2010. The main aim of this study is to explore patterns of intergenerational crime for the first time in the Maltese islands, to understand how and why convictions run in Maltese families. In other words, the focus here is on the potential role of the family in crime continuity, the familial relationships between incarcerated inmates and the influence of these relationships on emerging crime trends. Quantitative methods are used to examine intergenerational presence and the evolution of crime covering at least two to three generations of families. This is achieved through employing a risk factor approach to explore potential “crime promoters” that could act as transmission proxies in crime continuity. One in every three inmates registered at CCF belongs to the intergenerational cohort. Moreover, the findings from this study identify that having a sibling, a parent and/or a spouse convicted of a crime is a risk/mediating factor for crime continuity, and the risk is further augmented by the increased presence of criminal relatives. This is compounded by exposure to crime through co-offending, social networks between related inmates within the walls of CCF and also the time a person spends in their neighbourhood. The intergenerational cohort is more crime prolific as attested by intense conviction patterns and recidivism trends and is also inclined towards committing serious crimes and crimes that require more planning and organisation. The processes required for this may be accommodated by the family providing one with entrusted accomplices. The relatively larger crime families (5-node to 10+ node structures) together represent one quarter of the intergenerational cohort. As crime families increase in size, a blend of restricted and extended relationships features evidently attesting the concentration and continuity of offending. The *çorma* (a large group of people/children), hosting 54 related inmates symbolises the fusion of five crime families through assortative partnering; representing crime continuity across two to five generations. The occurrence of multiple risk factors for intergenerational offending in Malta that were simultaneously identified in this study include: economic inactivity; residing in neighbourhoods laden with crime families; poverty pockets and offender-residence hotspots. These combined individual and ecological risk factors help to explain the concentration of convictions in a relatively small number of crime families.

Disclaimer

The results presented in this thesis are based on my own research in the Department of Criminology, University of Huddersfield. All assistance received from other individuals and organisations has been acknowledged and full reference is made to all published and unpublished sources used.

This thesis has not been submitted previously for a degree at any Institution.

Signed:

A handwritten signature in black ink, appearing to read 'J. Formosa Pace', written in a cursive style.

Janice Formosa Pace

Date: December 2014

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Glossary

Branches	The number of relationships within family trees.
CCF	Corradino Correctional Facility; the only Prisons on the islands hosting male and female offenders in separate divisions.
Co-offender	A criminal act involving the concurrent presence of at least two offenders as partners in crime.
Crime family	A group of individuals with identified restricted and/or extended familial relationships with other inmates at CCF.
Extended relationships	Relationships with family members outside the nuclear family.
Family tree	The structure or model used to graphically depict the individuals (inmates) and the nature of their familial relationships with other inmates. Each tree is assigned an <i>ig_no</i> .
Horizontal relationships	Offending within a family likely to involve one generation of individuals such as siblings, spouses, cousins and in-laws.
Intergenerational cohort	Those individuals whom have identified restricted or extended familial relationships with other inmates; a sub-set of the general prison population.
Intergenerational research	The study of transmission of anti-social tendencies across generations of families; the focus is to highlight across individual differences and to what extent lives are linked.
Intragenerational research	A genre of research focusing on individual trajectories mainly dominated by criminal career research as part of developmental and life course criminology.
ISCO	International Standard Classification of Occupations (ISCO); an international classification issued by the International Labour Organisation.
NNH	The NNH (hierarchical nearest neighbour) clustering is a constant-distance clustering routine that groups points together on the basis of spatial proximity.
Nodes	The number of persons belonging to a family tree.
Non-family Component	Individuals (inmates) with no identified familial links with other inmates; a sub-set of the general prison population.

NUTS level	Nomenclature of terrestrial units for statistics (EUROSTAT): NUTS5 represents the Local Council level
Parameter	All inmates at CCF between 1950 and 2010 referred to as the general prison population.
Prospective approach	Method that explores human behaviour through the following of a cohort's individuals over time aimed at studying outcomes.
Recidivists	Those inmates who have served more than one conviction ticket at CCF are considered recidivists.
Restricted relationships	Relationships between individuals belonging to a particular nuclear family.
Retrospective approach	A cohort of individuals is studied back in time and the focus is likely to include risk and protective factors in relation to an outcome/phenomena identified in the beginning of the study.
Vertical relationships	Offending involving at least two generations of individuals from the same family such as father-son.

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Chapter 1: Introduction

1.1 Aim of the Research

Functionalists depict the family as a positive, universal social institution which addresses the needs of its members by fulfilling four key societal functions; sex, reproduction, education and economic factors (Murdock, 1949; Parsons, 1951). Within this close-knit structure, children experience primary socialisation, a process through which they acquire the societal norms and values that set the building blocks for an individual's life and the "stabilisation of personalities" as adults (Gillin, 1954). Critics argue that this is in tune with an ideological stance deeply rooted in a conservative framework that underestimates and ignores the negative aspects of the family such as domestic violence, aggression, delinquency and crime (Simons, Simons & Wallace, 2004).

All countries embrace different family types as fundamental units shaped and moulded by society. Thus, the family as a fundamental unit serves as a source of identity to its members. The family as a social institution has experienced a significant amount of changes in view of increased separation and divorce rates, the increase of one-parent households, and reconstituted families. In addition, there are further pressures that emanate from constraints rooted in socio-economic inequalities (Collishaw, Goodman, Pickles & Maughan, 2007), and the increasing urges that feature in a materialistic contemporary era (Eckersely, 2006). Changes are socio-economic and socio-cultural in nature and represent different realities across space and time, and, are heavily influenced by the context of the society in which they occur. This said, however, there is no doubt that crime is inevitable (Durkheim, 1895) and is integral to the social context where the concept of a crime-free society represents more of a "utopia".

It is noted that imprisonment rates have increased in Europe and in America between the end of 2008 and May 2011 (Walmsley, 2009) resulting in a significant number of children having parents in prison (Campbell Systematic Reviews, 2009; Murray & Farrington, 2008). In the Lappi-Seppälä (2011) comparative study of imprisonment rates (1992/1995 and 2009/2010) in Europe, all countries except four (Estonia, Lithuania, Romania, Finland) experienced an increase in imprisonment rates. Interestingly, the "small states of Croatia, followed by Malta and Cyprus" attested the highest increases (Lappi-Seppälä, 2011, p.304). This phenomenon

led to an increase in empirical interest in the relationship between the family as a fundamental social institution and the occurrence of crime in view of the harm done to the social fabric through the erosion of social cohesion and in turn social capital (Siegel, 2009).

Focusing on a specific country, the main aim of this study is to develop an understanding of the concentration of incarcerations in Maltese families and to analyse the evolvement of crimes across the generations. The study analyses whether the family has a role to play in crime particularly in the Maltese islands. As imprisonment rates have increased in Malta, it is expected that an increasing number of children will have parents imprisoned. Malta as an island state, is built on families rooted in social solidarity and support networks (Formosa, 2007), which may impact upon the likelihood of crime occurring within families. This research involves an analysis of all incarcerated persons¹ in the Maltese Islands from 1950 to 2010. This 60-year span covers at least two to three generations of Maltese families. The study is pioneering in that it builds a comprehensive lineage structure of related incarcerated offenders across time and space.

1.2 Introduction to the topic

1.2.1 Synopsis: Theoretical Background

Intergenerational crime research focuses on studying the crime patterns of generations of families across decades. Thornberry, Freeman-Gallant, Lizotte, Krohn and Smith (2003), in their study on intergenerational antisocial tendencies as a series of behavioural patterns, claimed that such tendencies, inclusive of crime, are transmitted across generations of families. This was further strengthened by Thornberry (2009) and Johnston (2006) that parents and children, not only manifest genetic similarities such as eye and hair colour, but also, exhibit similar forms of anti-social and criminal behaviour. The criminal activities of fathers and their sons are widely researched and an increasing body of research has explored the concentration of convictions amongst siblings. Intergenerational offending research is an implicit theme within Developmental and Life Course Criminology (DLC) and within the DLC umbrella the

¹ Males and females; sentenced and awaiting trial

notion of the criminal career² theoretical framework is highly relevant. The main exponents of studies intended to explore crime continuity across generations of families employ, primarily, the use of longitudinal designs through a blend of prospective and retrospective techniques.

However, irrespective of the methodological design employed, this type of research points towards a scenario in which lives are linked (Thornberry et al., 2003), where parents and children tend to show similar anti-social patterns, (Thornberry, 2009) and the correlation between parents' and children's crime is strong (Johnston, 2006). Having a parent and/ or a sibling involved in crime is considered as a risk/mediating factor in the cycle of crime. Also, this scenario could be stimulated by other crime-related constructs that simultaneously interact with family risk factors (Bijleveld & Wijkman, 2009) sustaining crime continuity across generations of related individuals. However, it is not expected that all criminal parents bear criminal children and neither do all anti-social children grow into anti-social adults (Robins, 1978). In fact, some of these children become resilient young adults (Hoffmann & Cerborne, 1999). On the other hand, it is also likely that siblings, particularly those sharing similar backgrounds, influence each other's behaviour irrespective of their parents' criminal or law-abiding tendencies. The focus of intergenerational research is to study similarities and differences across individuals, so as to understand to what extent lives are linked and to what extent behavioural models persist across generations of families. Nonetheless, research in the field falls short of studying the underlying mechanisms (Bijleveld & Farrington, 2009; Putkonen, Ryyänänen, Eronen & Tiihonen, 2002; Thornberry et al., 2003) and related risk and mediating factors which may identify how and why crime runs in families.

Social scientific research is interested primarily in understanding human development and behaviour. As researched since the early days of the fathers of sociological thought, this is essentially aimed at comprehending both conventional as well as deviant behaviours of societal members (Comte, Durkheim, Dahrendorff, Weber, Marx, and Merton). Theories that are most relevant to intergenerational offending research include the general theory of crime (Gottfredon & Hirschi, 1990); social control theory (Hirschi, 1969); morality (Wikström, 2004, 2006, 2008); rational choice theory (Clark & Cornish, 1985); social interactionists' perspective (Glaeser, Sacerdote & Schienkman, 1996); differential association theory (Sutherland, 1947); social disorganisation framework (Park & Burgess, 1924; Shaw & McKay, 1942) and the

² Criminal career research adopts the intragenerational genre of research; the study of criminal careers and within individual differences across the life course.

classic class-crime debate (e.g. Ferguson, Swain-Campbell & Horwood, 2004). The general theory of crime is the most cited theory in intergenerational research as low self-control³ is indicative of the emergence of conduct problems.

However, other research highlights that social control⁴ and the provision of moral constraints regulate conduct behaviour. Wikström's situational action theory (SAT) combines routine activity theory, as rooted in environmental criminology, self-control theory and rational choice theory in order to focus on morality as a construct in explaining and understanding crime. SAT highlights the role of the setting⁵ and the nature of criminogenic exposure that individuals are subjected to. One such exposure, marriage, has been defined as a turning point for desistance as identified by Glueck's 1950 study; however intimate relationships with partners involved in crime posits an imminent risk and could serve as a fertile ground for intergenerational transmission. Also, crime committed by parents could indicate poor social control and poor transmission of moral standards. Social interactionist (Glaeser et al., 1996) claim that people's behaviour is shaped by the actions of others and it is anticipated that one is more crime prolific in a "bad environment". This directs one's attention to the observation that people of similar characteristics opt to live in similar neighbourhoods. The correlation between inequality, socio-economic deprivation and crime can be explained using a social disorganisation framework highlighting the clustering of families in neighbourhoods laden with socio-economic strain and where social exclusion is reinforced.

In terms of the local context, most sociological research in the Maltese Islands has focused primarily on the functional role of the family as a positive social institution disregarding the fact that the family, per se, could be responsible in generating and maintaining a cycle of disadvantages across generations (Simons et al., 2004). Nonetheless, crime research in Malta shows that the typical incarcerated offender is a young unmarried male displaying drug-related tendency (Malta Probation Service, 2007 cited in Azzopardi & Scicluna, 2009, p.160). Male and female inmates alike tend to belong to the younger cohort; mostly between 20-24 years of age (Formosa, 2007). The prison population at times in 2014 stood at 630 as compared to a population of 420,000. This could be attributed to various scenarios; harsher and longer

³ An internal means of control

⁴ An external means of control

⁵ Family and society

incarceration sentences, increased conversions of unpaid fines to prison terms and an increase in the number of white collar offenders, amongst others.

It is essential that intergenerational crime research is carried out in the Maltese islands since this topic is innovative. Detailed research here has not previously been conducted due to a dearth of data, and therefore the family unit has not been studied in relation to crime. Additionally, the intergenerational genre has not featured in countries where the geographical and cultural factors influencing family life are so strong as to render it difficult for individuals to detach from their “roots”, leading to the propagation of crime across the generations and, in turn, act directly or indirectly as potential “crime promoters” or alternatively as “crime preventers” (Ekblom, 2010).

1.3 Chapter Structure

This thesis is structured as follows:

1.3.1 Chapter 2: Literature Review

Chapter 2 provides the reader with an overview of the main exponents of intergenerational research carried out in different countries. This is aimed at setting the foundations for understanding the empirical rationale of research focusing on studying the “persistence” of behaviours across individuals and subsequently across generations of families. A discussion of the major themes that stem from the reviewed studies follows where each theme is presented as a risk and/or mediating factor in the cycle of crime continuity. The themes include the: i) role of the family as a social institution ii) key figures in crime transmission; iii) gender related issues and partner choice; iv) exposure to crime; and v) other risk factors linked to intergenerational continuity of offending. A discussion on the mechanisms that attempt to explain how and why crime runs in families is given. This is, in turn, backed up by a review of theories that are often employed to understand crime continuity whilst also highlighting the gaps identified in the reviewed literature.

1.3.2 Chapter 3: Malta - An Overview

The main emphasis of chapter 3 is to provide a discussion on the cultural, demographic, family, socio-economic factors and crime constructs that feature in Malta. It sets the context for understanding the setting (country) in which the study is carried out, focussed on Maltese nationals interned at Corradino Correctional Facility (CCF) and their respective families. The chapter aims to identify the aspects of family life in Malta that could influence crime continuity, particularly in view of the issues and gaps identified in the international literature.

1.3.3 Chapter 4: The Research Questions and Research Framework

Chapter 4 outlines the research framework for this thesis. This serves as a launching pad to discuss the aims of the study. Following this is an overview of the three research objectives emanating from the research aim. Objective 1 explores conviction patterns of crime families whilst objective 2 examines the potential influence of familial relationships on crime patterns. The third objective outlines potential risk factors which could be linked to the intergenerational continuity in offending. This, in turn, is supported by a discussion that outlines the five research questions resultant from the objectives for this Malta study outlined in Section 4.5. The reader is provided with an in-depth overview of the empirical rationale derived from the gaps identified in the international literature (Chapter 2) and the cultural aspects that could influence the intergenerational continuity of offending in Malta (Chapter 3). In addition, the discussion presented in Chapter 4 highlights those criminogenic aspects that were beyond the remit of this research.

1.3.4 Chapter 5: Methodology

This methodological chapter provides a summary of the research design employed in the study of intergenerational offending in this thesis. An overview of the methodological approach follows outlining the three phases of this study and the research objectives within them. A discussion on the collection of data and sampling techniques used is offered through a synopsis of the data sets used in this study; data availability; and the reliability of the data. The limitations of the research design and the ethical issues pertaining to the study are also outlined. This is also supported by a discussion focusing on the analysis of data and an explanation of

the methodological tools employed in the process of data analysis. A description of the attributes used for the statistical and spatial analysis of data is also provided.

1.3.5 Chapter 6: Profile of Intergenerational Offending in Malta

Chapter 6 presents the findings emanating from the first research objective focusing on the creation of a profile of intergenerational continuity in offending in Maltese families. An overview of the general prison population is presented. Here the reader is provided with a description of the population sub-sets; the intergenerational cohort and the non-family component. The next two sections then present the analysis of findings related to the first research question, focusing on the absence or presence of intergenerational continuity in offending in Malta. The first section aims to highlight whether or not the phenomenon of intergenerational offending exists in Malta. A comparative cohort analysis taken up in the second part of Chapter 6 aims to identify potential crime patterns specific to the intergenerational cohort through the examination of crime types, recidivism trends and co-offending. This, in turn, is supported by an in-depth analysis of crime types and length of sentences served at CCF. This leads to a discussion on the number of generations attesting an association of convictions between related inmates together with an investigation on crime prevalence through the analysis of crime family size.

1.3.6 Chapter 7: Familial Relationships amongst Maltese Offenders and their effect on crime patterns

Chapter 7 presents the findings from the second research objective; concerned with the influence of relationships on emerging crime patterns tackling two research questions. A discussion linked to the second research question summarises the type of relationships between related individual inmates interned at CCF. This is complemented by an overview of the mapping exercise which was carried out to compile “trees” representing crime families who constitute the entire intergenerational cohort. The focus here is on exploring the size of crime family and the nature of relationships that feature in the respective structure. Vignettes are employed to provide a biographical description of relationships and “criminal careers” within a specific crime family. The analysis emanating from the second research question sets the foundation for the third research question. The focus here is on analysing the potential

influence of relationships identified in the mapping of crime families on emerging crime patterns focusing primarily on seriousness of offending and recidivism. The discussion is aimed at studying the impact of exposure to crime on crime continuity.

1.3.7 Chapter 8: Transmission risks of intergenerational offending

Chapter 8 outlines other risk and/or mediating factors which could directly or indirectly influence the transmission of crime across generations. The discussion focuses on the third research objective exploring the potential transmission risks in intergenerational continuity of offending, from which two research questions arise. The findings from the spatial and statistical analysis are presented into two sections. The first section outlines the spatial factors, which could act as potential “crime promoters” in view of offender residence and poverty hotspots identified in another study carried out in Malta (Formosa, 2007). This is aimed at identifying potential concentrations of crime families in “areas” that could promote crime continuity. The analysis presented in the second part of the chapter focuses on the presence of individual (literacy and school type) and social (employment; activity vs. non-activity) risk factors as potential transmission proxies.

1.3.8 Chapter 9: Conclusion

Chapter 9 brings together the results elicited in the findings chapters (Chapters 6 to 8) and highlights the major issues pertaining to Maltese culture and its potential relationship to social constructs and crime issues. The discussion reviews the results in line within the research framework outlined in Chapter 4. The chapter concludes through the setting out of recommendations for policy review and highlights the areas/gaps that could be taken up for further research.

Chapter 2: Literature Review

2.1 Introduction

The aim of this chapter is to review and understand literature pertaining to the study of intergenerational transmission of crime. The focus is to explore offences and their association with the family as a social institution, in order to comprehend the potential role of family in the cycle of crime continuity. This chapter reviews the development of intergenerational crime research, and provides the reader with an overview of the main exponents and landmarks in this genre of research. This is followed by an outline of the methodological approaches employed to study whether or not lives within families are linked through crime.

Findings from the reviewed studies are grouped into key criminological concepts, which are presented as risk factors and “promoters” of potential incarcerations of different family members. This is corroborated by a review of the mechanisms that could explain how and why crime runs through families, followed by an overview of the various theoretical frameworks relevant to the study of the intergenerational transmission of crime. This chapter concludes with a synopsis of the main findings, outlines gaps in existing knowledge, and sets the context for justifying Malta as a case study in intergenerational crime research.

2.2 Criminal career research sets the foundations to intergenerational crime research

Criminal career studies have predominantly concentrated on the analyses of onset and development of the criminal trajectory, thus exploring offending across the life course for individual offenders. The main focus of this type of research, which adopts an intragenerational approach, is to focus on the development of offending careers at the individual level, prevalence of offending, persistence, and, to a lesser extent, desistance from crime (Bottoms, 2006). This genre of research is central to the Developmental and Life Course Criminology (DLC) (Farrington, 2008). Intergenerational crime research explores the crime patterns of generations of families across decades. Thus, intergenerational research investigates the similarities and differences between individual offenders who are related to

one another by familial ties. The focus is primarily on fathers and sons, and to some extent siblings covering at least two to three generations.

Intergenerational research was launched through DLC, and became renowned in the 1980s through Blumstein's study yielding information on criminal careers and offending patterns (Blumstein, Cohen, Roth & Visser, 1986) and gained more publicity through subsequent longitudinal studies (Kivsgarrd, 2003; Liberman, 2010; Piquero, Farrington & Blumstein, 2007). DLC incorporates under its umbrella the criminal career and risk factor prevention paradigms, as well as life course criminology. The study of criminal careers is fundamental to this theoretical framework (Farrington, 2008). Also, criminal career research⁶ focusing prominently on studying individual life course trajectories is described by Van De Rakt, Nieuwebeerta and De Graaf (2008) to be rooted in the "intragenerational" developmental framework of crime. Intergenerational crime research is less popular than individual criminal career research as it is time consuming, covers at least two family generations thus capturing data on parents and children, and requires the identification and use of a control group (Van de Rakt et al., 2008).

The Cambridge Study (West & Farrington, 1977) is the most frequently cited intergenerational empirical evidence and is regarded as a "landmark" in criminal career research (Van De Rakt et al., 2008). Farrington, one of the most prominent figures in criminal career research in the past decades, has set the building blocks for intergenerational crime research in the United Kingdom (UK) by conducting the Cambridge Study. This survey studied crime and delinquency of 411 males, mostly aged 8 and 9, in 1961-2 living in a working class area in London (Farrington & Hawkins, 1991). The study identified four factors as important predictors of offending including: economic deprivation, crime in the family, lack of parental skills and school failure (Farrington & West, 1990). The Cambridge Study originally aimed at understanding and explaining the development of delinquency and crime of inner-city males sets the groundwork for intergenerational research by identifying that convicted parents and delinquent siblings are important predictors of offending (Farrington & West, 1990). The study findings also consolidate the concept of continuity in offending across generations, as crime is part of a cycle of antisocial tendencies (Farrington, Jolliffe, Loeber, Stouthamer-Loeber & Kalb, 2001). Problem children tend to grow into problem adults who, in turn, bear problem

⁶ Examples: Blockland and Nieuwebeerta (2005); Blumstein et al. (1986); Bushway, Brame and Paternoster (1999); Farrington and West (1990); Farrington and Wikström (1994); Laub and Sampson (2003); Piquero, Farrington and Blumstein, (2003); Stouthamer-Loeber, Wei, Loeber and Master (2004).

children (Farrington & West, 1990), within the family unit which is the social institution responsible for child rearing (Farrington, 2005).

Another noteworthy longitudinal study within the criminal career framework is the Pittsburgh Youth study (Loeber, Farrington, Stouthamer-Loeber, Moffitt & Caspi 1998a). This study analysed a sample of 1,517 inner-city boys attending public schools and representing different age groups. The research primarily aimed at studying the developmental delinquency pathways from childhood to early adulthood, inclusive of dependence of substances (Loeber, Wei, Stouthamer-Loeber, Huizinga & Thornberry, 1999). Like the Cambridge study, this research focused on the intergenerational aspects of crime. Using arrest data, a series of family members ranging from parents, to siblings, to grandparents and uncles were identified as predictors of delinquency, with the father being the most significant and influential crime predictor (Farrington et al., 2001). The Pittsburgh Youth study confirmed clustering of offending in families, with 12% of the siblings studied generating 59% of the delinquent acts (Van de Rakt, Nieuwebeerta & Apel, 2009) corroborating with previous findings by Haynie and McHugh (2003) and Rowe and Gulley (1992).

Criminal career research has served as the foundation for theory and methods to intergenerational crime research, since life-course and intergenerational frameworks of offending merge well (Van de Rakt et al., 2008) and, to a certain extent, overlap. Criminal career research primarily focuses on the prevalence and interconnectedness of factors (Farrington & Maughan, 1999), related to onset, duration and desistance, as sequential stages of the criminal career (Farrington, 1995). This research identifies parenting styles (Jang & Smith, 1997) and poor self-control (Hirschi, 1969) as having repercussions for subsequent intergenerational impacts and the continuity of offending (Thornberry et al., 2003). Criminal career research also identifies factors such as stable employment (Blockland & Nieuwebeerta, 2006; Laub & Sampson, 2003) and marriage as signposts to desistance and transition to conventional trajectories (Blockland & Nieuwebeerta, 2006; Farrington & West, 1995; King, MacMillan & Massoglia, 2007; Laub & Sampson, 2003; Laub, Nagin & Sampson, 1998; Sampson & Laub, 1993; Sampson, Laub & Wimer, 2006; Theobald & Farrington, 2009). This partly explains why not all criminal parents bear criminal children as “detours and unpredictable outcomes” account for within individual and between individual differences in the life-course (Le Blanc, 2008).

However, as Bottoms (2006) points out, when Laub and Sampson (2003) refer to stable employment and marriage as “turning points”, they fail to explain the choice process involved in responding to such detours. Human beings as “actors” constantly restructure their past experiences so as to organise and mould their future responses with a visualisation of setting foot in a new life period (Emirbayer & Mische, 1998). It is amply clear that not all antisocial children grow to become antisocial adults (Robins, 1978). In addition, reduced family hardships positively affects conduct problems (Barker & Maughan, 2009) and thus somewhat account for a modest intergenerational transmission of anti-social behaviours. This is seen in the Thornberry et al. (2003) study, attesting that such transmission is mediated by economic problems and parenting conduct behaviours, with effects fluctuating according to second generation gender.

2.3 The methodologies of Intergenerational research

A series of behavioural patterns including crime have been assumed and claimed by various authors (Blazei, Iacono & Krueger, 2006; Herdon & Lacono, 2005; Johnston, 2006; Lussier, Farrington & Moffitt, 2009; Moffitt, 1993; Rowe, Rodgers & Meseck-Bushey, 1992; Thornberry, 2009), to be transmitted across family generations, thus highlighting that lives are linked (Thornberry et al., 2003). Furthermore Jacobson, Prescott, Neale and Kendler (2000) also state that the prevalence of anti-social tendencies increases across succeeding generations, as explained by Moffitt (1993) and Lussier et al. (2009). These tendencies are carried from one stage to the other in the life-course as such tendencies are shared between parents and their children (Herdon & Iacono, 2005) whilst siblings living within the same family unit tend to manifest similar tendencies (Rowe et al., 1992). Early engagement in such tendencies limits one’s opportunities for change (Moffitt, 1993) since one’s engagement in pro-social activities such as stable employments are reduced. Robins (1978) and Hoffmann and Cerborne (1999) appear to disagree with the above mentioned authors however, stating that not all criminal parents bear criminal children and not all anti-social children grow into anti-social adults since they become resilient young adults and thus learn to cope with “strains” (Agnew, 1997).

Various anti-social behaviours and criminal behaviours have been investigated in the study of intergenerational crime including aggressive behaviour (Delsol & Margolin, 2004⁷; Shaw, 2003); domestic violence (Wareham, Paquette Boots & Chavez, 2009⁸); intimate partner violence (Lussier et al., 2009); alcohol abuse (Fuller et al., 2003⁹); drug abuse (Hjalmarrson & Lindquist, 2009; Thornberry, 2009); child abuse (Egeland & Susman-Stillman, 1986; Widom, 1989) and crime more generally (Bijlevald & Wijkman, 2009¹⁰; Putkonen, Ryyänen, Eronen & Tiihonen, 2007; Rowe & Farrington, 1997). These behaviours have been empirically claimed to persist to some extent across decades representing generations of families.

Intergenerational research is a slow growing body of research because it is time consuming, costly, frequently adopts retrospective methodologies, and typically relies on very few informants (if any). There are various approaches to study continuities in crime. These include: criminal career research as discussed above; the intergenerational design; experimental methods; case studies, and the most recent design referred to as the life-course trajectory. Table 2.1 summarises the methodological characteristics of the approaches outlined above, the theoretical premise/s, and the examples of research that fall within each group. The main exponents of research in the field are categorised by the similarities of the methodological design that are shared between the individual examples of research, which groupings have shared features that make them distinctive. Nonetheless, the main thrust of the approaches, irrespective of the design employed, is the study of crime across family generations.

⁷ Other studies include Bandura (1973); Doumas, Margolin and John (1994); Fuller et al., (2003); Huesemann, Eron, Lefkowitz and Walder (1984); Mihalic and Elliott (1997); Osborn and West (1979).

⁸ Other studies include Egeland, Jacobvitz and Sroufe (1988); Fagan, Hansen and Stewart (1983).

⁹ Other studies include Jacob (1986); McCord (1999); Velleman (1992).

¹⁰ Other studies include Bijlevald and Farrington (2009); Farrington, Coid and Murray (2009); Farrington, Lambert and West (1998); Farrington et al. (2001); Ferguson (1952); Glueck and Glueck (1950); Kim, Capaldi, Pears, Kerr and Owen (2009); McCord, 1999; Thornberry et al. (2003); Van de Rakt et al. (2008), Van de Rakt et al. (2009); Van de Rakt, Ruiter, De Graff and Niuewbeerta (2010).

Table 2.1: Reviewed intergenerational research: Methodological characteristics and theoretical framework

Research Genre	Research Design	Main Exponents	Sample	Theoretical Framework
Originally criminal career	<p>Prospective Longitudinal Design</p> <p>Qualitative: interviews; questionnaires; self-reports & psychological testing</p> <p>Quantitative: Official crime records of relatively serious offences</p>	Besemer (2012); Smith and Farrington (2004); West and Farrington, (1977).	Cambridge Study sample	<p>Static versus Dynamic theories</p> <p>Risk factors: individual, family and socio-economic</p> <p>Labelling theories</p>
Originally criminal career	<p>Prospective Longitudinal Design</p> <p>Qualitative: interviews; questionnaires & self-reports</p> <p>Quantitative: Official records of convictions & Arrest Data</p>	Browning, Thornberry and Potter (1999); McCord (1999); Thornberry et al. (2003).	Samples from Rochester Youth Development Study, Cambridge-Somerville Youth Study & Oregon Youth Study	<p>Risk factors: personality, social, exposure, school, peer & gang membership</p> <p>Parenting and family factors (attachment, involvement, supervision)</p> <p>Assortative partnering</p> <p>Interactional Theory</p>

Research Genre	Research Design	Main Exponents	Sample	Theoretical Framework
Originally criminal career	Prospective & Retrospective designs Municipal records; Population Registration data & Crime records of convictions	Nijhof, de Kemp and Engels (2009); Van De Rakt et al. (2008); Van De Rakt et al. (2009); Van De Rakt et al. (2010).	Dutch Criminal Career & Life Course Study	Static and Dynamic Theories The General Theory of Crime Risk factors: socio-economic, learning by imitation, socialising with similar peers, neighbourhoods laden with social constraints and parenting styles Social Learning Theory Nature vs. Nurture Labelling
Experimental & Case Study Approach	Quantitative: Official crime record; Socio-economic data & residence	Hjalmarrson and Lindquist (2009); Putkonen et al. (2007).	Adoption & Twin Studies	Social background, socio-economic constraints and exposure to individuals (parent/s) in crime

Research Genre	Research Design	Main Exponents	Sample	Theoretical Framework
			Small sample of homicide recidivists	<p>Nature vs. Nurture</p> <p>Timing of fathers' convictions</p> <p>Parenting: quality of relationships</p>
Life-course trajectory: new approach	Retrospective techniques Matched control group	Besemer and Farrington (2012); Van de Rakt et al. (2008).	<p>Originally Dutch Criminal Career & Life Course Study and the Cambridge Study Sample respectively</p> <p>Semi-parametric group-based analysis</p>	<p>Differential Association Theory</p> <p>Biological factors</p> <p>Self-control Theory</p> <p>Socio-economic factors and environmental constructs</p> <p>Timing and Intensity of Crime</p>

Most studies carried out to date particularly in the UK, United States (US) and the Netherlands, have primarily been designed to generate data necessary for criminal career research. Typically, such data have been used for intergenerational crime research covering two to three and even five successive family generations. Five British¹¹, four American¹², two Nordic¹³, five Dutch¹⁴ and one British-Netherlands¹⁵ comparative studies were reviewed for the purpose of this thesis and the main findings are presented in section 2.4 (See Figures 1 to 5 in Appendix 1 which depict the research aims, methodological rationale, and findings and limitations distinguishing studies by country). These studies are the main exponents of research investigating the continuity of crime across generations of families.

All British studies examined here have used the sample of people researched in the Cambridge Study discussed above. All of these studies adopted a predominantly prospective longitudinal design¹⁶ which amalgamates qualitative techniques and quantitative methodological tools¹⁷ using official crime records. The original Cambridge study sample of 411 South-London males represent the second generation referred to as G2. Their parents were traced retrospectively; referred to as G1 (first generation). The third generation (studied prospectively) known as G3, represents the children of G2 and the grandchildren of G1. The coding system adopted here, which represents the different generations of individuals studied in intergenerational research, is employed in most research exploring crime continuity. The focus is on individual risk factors such as conduct behaviour at school and attitudes, family and social risk factors particularly employment, socio-economic issues, atmosphere at home, parental supervision, and history of mental health (Farrington et al., 2009).

Similarly, the US studies (Browning et al., 1999; Kim et al., 2009; McCord, 1999; Thornberry et al., 2003) also took on board the prospective longitudinal genre using samples from a series of studies such as the Rochester Youth Development Study, the Cambridge-Somerville Youth Study and the Oregon Youth Study. In turn, qualitative techniques incorporating interviews

¹¹ Besemer (2012); Besemer and Farrington (2012); Farrington, et al. (2009); Smith and Farrington (2004); West and Farrington (1977).

¹² Browning et al. (1999); Kim et al. (2009); McCord (1999); Thornberry et al. (2003).

¹³ Hjalmarsson and Lindquist (2009); Putkonen et al. (2007).

¹⁴ Bijlevald and Wijkman (2009); Nihjof et al. (2009); Van de Rakt et al. (2008); Van de Rakt et al. (2009), Van de Rakt et al. (2010).

¹⁵ Besemer, Van der Geest, Murray, Bijlevald and Farrington (2011).

¹⁶ Prospective longitudinal research incorporates repeated observations of identified variables over decades. A selected time period is identified and participants are studied over the years.

¹⁷ Tools refer to statistical software and measurement scales.

and self-reports together with quantitative analysis of data from official records¹⁸, convictions and arrest data were used to unveil the complexity of crime in addition to the psycho-social component. As with the British studies, retrospective¹⁹ methods are used in the US to trace back G1, the parents of the targeted G2 sample from the original respective studies.

Most research in this field undertaken in the Netherlands (Bijleveld & Wijkman, 2009; Nijhof et al., 2009; Van De Rakt et al., 2008, 2009, 2010) mirrors the British methodological approach in various aspects such as the use of a criminal career database to identify the sample. Other similarities include the use of retrospective techniques to trace back previous generations of the targeted G2 sample, and the amalgamated use of qualitative and quantitative methods in data analysis. A distinctive feature in the Dutch studies is the analysis of demographic realities by focusing on a series of neighbourhoods. These were made possible through the use of official records such as municipal records, population registration data as acquired from the neighbourhoods from which families in crime originate, and crime records such as convictions data. The Bijleveld and Wijkman (2009) study distinguishes itself through its coverage of five generations targeting an identified high risk sample of males focusing on convictions. This study used a prospective and retrospective approach. Dutch criminologists tackled the phenomenon of intergenerational crime research through the application of different research tools using different datasets whilst amalgamating such databases to analyse intergenerational transmission across families.

The methodological strategies adopted by two Scandinavian studies (Hjalmarrson & Lindquist, 2009; Putkonen et al., 2007) are to some extent different from the previously reviewed studies. The Hjalmarrson and Lindquist's (2009) research was conducted over four phases including: analysis of correlations of fathers' and children's convictions; exploring the underlying mechanisms: social and household background; undertaking various experiments such as twin studies to study siblings' behaviour and studying the effects of paternal incarceration on children. Another distinctive feature involved the inclusion of family data with particular focus on socio-economic status and residence. The Putkonen et al. (2007) study adopted the case study approach focusing solely on a relatively small sample of homicide recidivists. Both

¹⁸ Sources used comprise: Police, schools, social services and income data.

¹⁹ A retrospective study is a longitudinal study that goes back in time by exploring records of previous years/decades.

studies used quantitative designs to analyse official data of crime records. It must be noted that the use of official crime records ignores unreported crimes.

Another relatively recent methodological technique used in the Netherlands study of Van de Rakt et al. (2008) and the British, Besemer and Farrington (2012) study concerns the semi-parametric group-based trajectory. This focuses on the identification of groups manifesting similar behavioural patterns across life-course trajectories, which in turn caters for group-based analysis (Nagin, 2005). The study employed the “semi-parametric group trajectory methodology”, which is a model that facilitates the design of diverse “age- crime” curves and also caters for the identification of groups of people who share similar behavioural trajectories. This in turn allows for studying criminal propensity at the individual level employing the study of developmental crime trajectories such as in the Van de Rakt et al. (2008) study. This technique represents a retrospective method enabling one to test the similarities and differences between successive generations of families in crime. On the other hand, Van de Rakt et al. (2008) included a matched control group²⁰ since the criminal career database²¹ that they used for their study lacked a control group; children of fathers who had never received convictions.

2.4 The intergenerational transmission of crime

Studies in family research show that crime runs and concentrates in families (Bijleveld & Farrington, 2009; Dugdale, 1887; Farrington & Welsh, 2007; Farrington, Barnes & Lambert, 1996; Farrington et al., 1998; Hjalmarsson & Lindquist, 2009; McCord 1991, 1999; Rowe & Farrington, 1997; Van de Rakt et al., 2008, 2009, 2010) as do convictions (Farrington et al., 1996, 2009; Rowe & Farrington, 1997) resulting in situations where criminal children are more likely to have criminal parents. Indeed, when adopting a risk factor approach, parental criminality seems to be the strongest family predictor (Farrington, 2011; Thornberry, 2009).

In line with this, studies have addressed the similarities and differences in the crime patterns of parents and their children retrospectively (Rowe & Farrington, 1997; Sampson & Laub, 1993) and prospectively (Farrington et al., 1996; Smith & Farrington, 2004; Thornberry, 2005; Thornberry et al., 2003; Van de Rakt et al., 2008) mostly across two generations of families, adopting an intragenerational developmental framework of crime (Van de Rakt et al., 2008).

²⁰ The matched control group from military record files consisted of 717 males chosen according to birth date so as to match with research subjects.

²¹ Known as (Criminal Career and Life Course Study)

Most studies focusing on intergenerational transmission adopt the comparative “any lifetime offending” to link the criminal behaviour of parents and their children without focusing on the timing of parental criminality and the intensity of parental criminality (Besemer, 2012; Besemer & Farrington, 2012). Thus, not accounting for the duration and timing of incarcerations amounts to a failure to challenge the direct examination of the nature of exposure to a criminal family member; learning by imitation/exposure; and the benefits emanating from losing contact with a criminal relative.

On the other hand, most studies that have focused on comparing convictions fail to distinguish between convictions and imprisonment as not all convictions are followed by imprisonment sentences. Moreover, the reliance on official reports conceals the dark figure of crime. This is particularly problematic when studying offending within families because family members tend to protect their relatives and could be also willing to provide alibis to police authorities. Other limitations also exist such as sample size and selection. For example the exclusion and/or limited inclusion of females hinders the study of potential gender related-issues in the continuity and discontinuity of offending. Furthermore, studying the concentration of offending in families proves to be a difficult task due to the constant changes in family units (Farrington et al., 2001).

Besides parental criminality, other risk factors (Refer to 2.4.4) have also been linked to the continuity of offending across generations. Nonetheless, the inclusion of some risk factors and the exclusion of others examined in relation to crime continuity are worth further discussion. An example includes failing to test straightforwardly biological constructs in the intergenerational transmission of crime such as in the Caspi et al. (2002) study of the cycle of violence in maltreated children, claiming that higher levels of *MAOA*²² serve as a moderator to the exposure to maltreatment. Socialising with other delinquent peers is another well documented crime risk factor (Laub & Sampson, 2003; Moffitt, 1993). Delinquent youths hang around with delinquent peers since they share similar characteristics (Scaramella, Conger, Spoth & Simons, 2002). However, the examination of peer influences, peers’ convictions and peers as co-offenders has to a great extent been ignored in intergenerational research.

Ecological approaches in empirical studies of offending emphasise the importance of neighbourhood influences and structural factors such as socio-economic disadvantage, poverty

²² The neurotransmitter-metabolising enzyme monoamine oxidase; the *MAOA* gene is located in the X chromosome.

(Wilson, 1987) and concentrations of crime as found in crime hotspots (Formosa, 2007), where geographic boundaries are usually outlined for the purposes of census exercises. It has for long been claimed that in particular neighbourhoods' socio-economic inequality prevails and some sort of segregation is also probable. Also, crime hotspots and other social scenarios such as single-parent families, low home ownership, school dropouts, poverty and social class, are all factors relevant to "neighbourhood stratification and ecological differentiation" that are pertinent to crime (Sampson, 2006). The study of macro-level (Sampson, 2006) risk factors such as the influence of the environment, social cohesion and residing in social-disorganised neighbourhoods is also under-examined within intergenerational research designs.

2.5 An overview of the main themes identified in intergenerational studies

This section provides an overview of the main and/or recurrent themes emerging from the reviewed studies. Each theme is tackled as a risk and/or mediating factor. A risk factor is defined as a "promoter" (Ekblom, 2010) to crime; a "characteristic, activity and/or an experience" which increases the probability of crime (Kazdin, Kraemer, Kessler, Kupfer & Offord, 1997, p.377). Nonetheless, it is often challenging to explore the "temporal sequence of risk factors" (Besemer, 2012). A mediating factor, which could also be a risk factor, is described by Besemer (2012, p.16) as "the causal link between parents' and children's criminality".

The themes outlined in the following section tend to overlap since examining risk/mediating factors in isolation to one another proves challenging, indeed they may not be mutually exclusive. Consequently each sub-section covers a number of risk and/or mediating factors, which tend to either blend or complement each other. The latter scenario is influenced by a situation where a combination of factors could explain the propagation of crime across successive generations. Studies also show that crime is part of a larger syndrome of anti-social behaviour (Farrington, 1997) and thus it is very likely that convicted individuals face other problems in life such as poor parenting skills, unemployment and living in "bad" neighbourhoods amongst other social-drawbacks. Consequently, a series of risk and/or mediating factors could be "causes of causes" (Wikström, 2009) in crime transmission.

2.5.1 The role of the family in relation to the study of crime continuity

Family plays a key role in society and caters for social support by standardising social behaviour (Baumner & Gustafson, 2007). It is within this unit that parents monitor their children's activities (Pettit, Laird, Dodge, Bates & Criss, 2001). Strong bonds are established, that can have lasting effects on a child's development and conventional behaviours, and such these bonds act as informal social controls (Farrall, Bottoms & Shapland, 2010), in turn serving as buffers to crime (Laub & Sampson, 2003; Shaw, Bell & Gilliom, 2000).

When the family does not fulfil its functional role in society, stress, conflict and other problems emerge such as financial difficulties, an undesirable home environment and crime (Ou & Reynolds, 2010). These circumstances mould generations of families (Skardhamar, 2009), whose probability of success in life (Breen, 2005) is restrained by strain (Agnew, 1992), social exclusion (Farrall et al., 2010; Houchin, 2005) and/or choice (Bottoms, 2006). Intergenerational literature has yielded prominent evidence as researchers such as McCord (1991) and Hjalmarsson and Lindquist (2009) identified a robust intergenerational crime link whilst the Thornberry et al. (2003) study found a modest transmission of anti-social tendencies between successive generations, mediated by factors such as parenting and economic stressors. At this point, Derzon's (2005) query as to whether the family is the "wellspring of crime" still holds. A series of family related factors have been closely linked to intergenerational transmission of crime including substance abuse, violence, family size, poor parenting and inadequate supervision, in addition to the biological factors rooted in genetics and neurological deficits (Bijleveld & Wijkman, 2009).

The prevalence of offending in families has been studied for a number of years. Glueck and Glueck's (1950) American study, investigated the link between parental fathers' criminality with that of their children. This was followed by ground breaking research such as the British study carried out by Ferguson (1952), which highlighted the incidence of offending continuity across generations, and McCord's (1977) longitudinal research comparing two generations of Americans. Similar research was continued by Robins, West and Herjanic's (1975) whose study focused on arrests and delinquency over two generations of black urban children. Evidence shows that the family has a role to play, although it may not be the major contributor as other criminogenic factors may interact with parental criminality (Bijleveld & Wijkman, 2009). Human beings are social beings (Le Blanc, 2006) who are influenced by a number of

factors which do not act in isolation. Thus a number of risk factors simultaneously, could trigger onset, and nourish the continuity of offending across generations.

In summary, the family has been identified as a “promoter” as well as a protective factor against potential incarceration. Research findings point towards a number of family risk factors that could act as risk and/or mediating factors in crime continuity. The family as a social institution is defined within a particular social context and is affected by the constant social changes pertaining to socio-temporal factors. The incidences of crime change across decades, and this evolvement could be in some way influenced by the socio-demographic factors that affect the family as well. At this point one would ask whether taking the family out of the equation would alter the offending patterns. Such a query sets the foundation for studying, for the first time, the potential role of the close-knit family unit in Malta, where social cohesion is very strong, and where the familial links that unite its members are even stronger. Also, findings from the reviewed studies might be specific to the country in which they were carried out, and results from previous decades may not be applicable in the context of the modern structure of families today.

The following sub-section focuses on the key figures and the main criminological concepts explored in intergenerational research.

2.5.2 Key figures and concepts in the intergenerational continuity of offending

Most research to date has focused primarily on the role of father/s as key figures in the transmission of crime to their son/s; few studies have included both the male and female offspring of convicted fathers. The interest in studying convictions of siblings is growing; however such a phenomenon is frequently examined with paternal and parental convictions together with their offspring.

The Farrington et al. (2009) study covered three generations of families over a period of 40 years, based on the Cambridge study sample discussed in Section 2.2 above. Results attest significant intergenerational transmission of offending from fathers to male children from G1²³ to G2 and G2 to G3. Sixty three percent of G2 whose fathers served a conviction faced a

²³ G1: First generation (parents of the G2); G2: Second Generation (the original 411 South-London males’ sample aged 8-9 in 1961/2, also children of the G1 and biological parents of the G3); G3: Third Generation (sons and daughters of the G2 and grandchildren of the G1), the G3 is composed of the eldest biological child of the G2 born between 1970 and 1987).

conviction themselves. This contrasts with the 33% of G2 facing convictions, whose fathers did not serve a conviction. Parental convictions when subjects were ten years of age were not the sole predictors of later convictions from G1 to G2. By their 10th birthday the strongest predictor of a boy's later offending were a "convicted parent or a convicted older sibling", anti-social behaviours and "daring" attitudes²⁴ that got one into trouble (Farrington, 1992). Having a convicted parent was found to be the "strongest independent predictor" of a chronic criminal career until the age 32 (Farrington, 1993; Farrington & West, 1993). Findings here corroborate with findings from the Cambridge study (West & Farrington, 1977) and another follow-up study by Farrington et al. (2006) using the Cambridge study data. Results from this study indicate a continuity of offending across generations of families where fathers' convictions are the strongest predictors of intergenerational transmission irrespective of the length of their criminal record and whether or not other family members had convictions (Farrington et al., 2009). Having two criminal parents does not put one in a worse position as one parent sufficed to account for intergenerational transmission. This claim contrasts with the findings from the Nijhof et al. (2009) study where it is claimed that two criminal parents exposed children to a greater risk as attested by their prevalence in offending.

The Besemer and Farrington (2012) study also used the Cambridge Study Data, as well as the original sample (males only), their fathers and their siblings (males and females) to study the intergenerational transmission of crime from fathers to children, focusing on timing and the intensity of parents' and children's offending, using official police records of parents and offspring. They employed Nagin's (2005) "semi-parametric group trajectory methodology"²⁵ since this model facilitates the design of diverse "age-crime" curves²⁶ and also caters for the identification of groups of people who share similar behavioural trajectories. Thus, in this way, the concept of behavioural heterogeneity in the development of criminal behavioural trajectories was accounted for. Convictions of relatively serious offences between the twelfth and fortieth birthday of fathers and their offspring were considered. The design of the fathers' conviction trajectories facilitated the identification of three groups of fathers; the chronic offenders (CO) that is those who had an average of 6.5 convictions, the Low Chronic or

²⁴ These refer to factors linked to impulsiveness and risk taking activities such as troublesome and aggressive school behaviour; personality and psychomotor impulsivity; frequent lying; nervousness and hyperactivity or poor concentration.

²⁵ This methodology is a relatively new statistical model used to identify and subsequently analyse developmental trajectories. This is essential in identifying the connectedness of behaviour over time when employing complex longitudinal datasets.

²⁶ Age is considered as one of the strongest predictors of crime (Denno, 1994; Farrington, 1986; Moffitt, 1993; Piquero et al., 2003).

sporadic offenders (LC) with an average of 1.5 convictions and the Non-Offending counterparts (NO) which also served as a control group representing those fathers who had no convictions over the entire observation period. Five groups of conviction trajectories for sons were identified, labelled as i) chronic offenders (average of 18 convictions reaching a peak during the late teens and early twenties); ii) low chronic/sporadic offenders (average of 5 convictions over the life-course); (iii) high desisters (average of 11 convictions, mostly during teens and early twenties followed by desistance); iv) low desisters (average of 2 convictions at teenage and early twenties followed by desistance) and v) non-offenders (nil or one conviction). Also, three groups of trajectories for daughters were labelled as follows; chronic offenders (an average of 7 convictions reaching a peak during their late teens and towards early twenties), low desisting offenders (average of 2 convictions and desisted during their twenties) and non-offenders representing those daughters who had no convictions during the study period.

Findings from the Besemer and Farrington (2012) study show a strong intergenerational transmission of crime, corroborating with other evidence that having a convicted father increases the probability and frequency of offspring convictions (Bijleveld & Wijkman, 2009; Farrington et al., 2001; Ferguson, 1952; Rowe & Farrington, 1997; Thornberry, 2005). However, this was attributed to the fathers having a conviction rather than to the nature of the fathers' conviction trajectories, since the intensity of the children's criminal career was not predicted by the intensity of their father's criminal career. Moreover, no significant differences were noted between children of either sporadic or persistent fathers' cohorts, which surprisingly contradict theories of intergenerational transmission. On the other hand, non-offending trajectories of fathers tend to predict non offending trajectories of children.

Van De Rakt et al.'s 2008 longitudinal study²⁷ focused on convictions of two generations of families; fathers and their sons and daughters observed for 40 years as against a matched control group adopting prospective and retrospective methods. Participants were divided into 5 groups: a control group (no convictions); "*sporadic offenders (SO)*"; "*low-rate desisters (LR-D)*"; "*moderate-rate desisters (MR-D)*" and "*high-rate persisters (HR-P)*". Results showed that children of fathers belonging to the control group show the lowest crime rates across the life course. Sons of fathers in the control group tend to be sporadic offenders in the early stage

²⁷ The Criminal Career Life Course Study (CCLS) was used as a database for this study carried out in the Netherlands; crime data focused on those acts followed by a conviction until 2002 whilst demographic data until 2003 covered the life course trajectory.

in life, whereas daughters offend at a later stage. Children of fathers who offend sporadically offend more frequently than the control group but much less so than those whose fathers belong to the “*low-rate desisters*” and “*moderate-rate desisters*”. Daughters of “*sporadic offenders*” fathers show similar crime curves to children whose fathers belong to the control group. Children of the “*high-rate persisters*” fathers are most likely to be crime prolific. Children whose fathers belong to the “*low-rate desisters*” and “*moderate-rate desisters*” commit most crimes across all stages in the life course. The sons commit most of the crimes and they enter into a criminal career much earlier than sons in the control group. Daughters of fathers from the “*low-rate desisters*” reach a peak at a later stage as compared to daughters of fathers from the “*moderate-rate desisters*” who commit most crimes early in life and also manifest a stability in moderately high level of offending after their thirtieth birthday. Daughters committed fewer crimes than sons but the intergenerational influence was the same for both sons and daughters. Most children classified as *chronics* (signalled by offending throughout all life-course stages) and *early desisters* (defined by their early engagement in crime) represented children born to non-married parents.

The relationship between fathers’ convictions and children’s convictions was robust. Almost eighty nine percent of the children whose fathers’ belonged to the control group were *non delinquent* compared with 62.2% for children whose father belonged to the “*high-rate persisters*”. Girls are more likely to be non-delinquent, although the scenario changes if the father belongs to the persistent trajectory; as their chance of being delinquent is as much as that for boys. The relationship between fathers’ offending and their children’s offending is significant even after controlling for variables such as age and sex, particularly with children whose fathers belong to the “*moderate-rate desisters*” and the “*high-rate persisters*”. Children whose fathers belong to the persistent group commit crime throughout the entire stages of their life course entering their criminal career early on. Furthermore, the probability of such individuals becoming persistent offenders and consequently belonging to the persistent trajectory group is also high (Van de Rakt et al., 2008). This said, such a finding contradicts Besemer and Farrington’s (2012) findings, whose study also used the “semi-parametric group-based trajectories methodology”. In the latter study the sample was relatively small and few females were studied.

A British²⁸ - Netherlands²⁹ comparative study (Besemer et al., 2011) analysed the relationship between parental imprisonment and offending by their children. The link between imprisonment of parents and their son's offending to some extent is attributed to parental crime, since parents who had imprisonment records had more convictions than parents who had convictions but were never imprisoned (Besemer et al., 2011). In the UK sample, sons of prisoners had more convictions than those sons whose parents got a conviction but were not incarcerated. However, the difference in convictions of daughters was not significant in the UK sample. Nevertheless, Hjalmarsson and Lindquist's (2009) four-phase Swedish study³⁰, also focused on both fathers' and children's convictions during the first phase of the study. Findings for this study attest that crime is robustly correlated across generations for both sons and daughters. Also, paternal crime is one of factors linked to crime continuity since a combination of risk factors such as poverty, genetic factors and parental instability³¹ together explain criminality across generations of families.

Putkonen et al. (2007) identified Homicide Recidivists Offenders as the target group representing the G2 subjects³². They traced parents and their children to analyse the intergenerational transmission of crime and violence, across three generations, compared with a matched control group. Findings identified that the parents did not commit crimes that could be defined as serious or violent, unlike the G3 generation, who were involved in serious violent crimes. Those G2 participants whose parents or children showed criminal tendencies were diagnosed to suffer from alcohol dependency and personality disorders. G1 fathers, who had a criminal record, also had alcohol related problems in their anti-social lifestyle. G2 as fathers, affected significantly their son's involvement in violent crimes, which process was mediated through the violence manifested by the fathers. Barely violent anti-social G1 parents, had children (G2) who scored high on violent activity and whose children (G3), in turn, manifested an elevated risk for all offence types, particularly violent crime (Putkonen et al., 2007). However, the sample chosen represented a category of serious offenders who constitute a minority of the offender population (Tracy, Wolfgang & Figlio, 1990). These results corroborated the researchers' previous findings from another Finnish epidemiological study

²⁸ Cambridge Study data

²⁹ Transfive study data

³⁰ Four experiments; using a birth cohort of 15,000 subjects born in 1953 from the Stockholm Metropolitan area

³¹ Parental instability refers to the physiological and psychological states that hinder one's wellbeing; examples include mental health issues and misuse of drugs.

³² 34 males and a female were chosen from a list of offenders charged with homicide between 1981 and 1993 in Finland.

(Putkonen, Ryyänen, Eronen & Tiihonen, 2002) claiming that the risk of children being involved in crime and violent offending increases as such tendencies are passed on from recidivists parents.

Crime prevalence and seriousness of offending were also examined in the Dutch province of Gelderland, where police compiled a database of risk factors of young offenders, between the age of 8 and 14, who were known to police officers. A total of 577 children and their respective parents were followed by researchers over an 18 month period. Whilst 34% (196) of the children had criminal parents, only 6% (33) had both parents in the criminal category. The frequency of parental involvement in criminal activities showed a positive correlation with the frequency of offending of their children. Furthermore, children whose parents were offenders committed more crimes than those whose parents followed conventional paths. However, the findings do not claim a relationship between the frequency of parental offending and the seriousness of crimes committed by their children (Nijhof et al., 2009).

Another Van de Rakt et al. (2009)³³ study focused specifically on siblings' criminal activities within the family. When siblings' convictions accumulate within the family, the offending probabilities for such children increase. Children of non-convicted fathers were less likely to be convicted when compared to children whose fathers were convicted, with daughters of the non-convicted fathers showing the lowest levels of convictions. As fathers' convictions increased, the likelihood of children's convictions also increased. Moreover, fathers influenced sons and daughters (Van de Rakt et al., 2009) equally. In the study siblings were reared in the same family, and their convictions between age 12 and 40, were combined in two models where variables such as age, sex and number of convictions were controlled. A dummy variable was employed to indicate those who had no siblings. The influence of siblings' convictions on an individual level was large when parents' crime as a variable was controlled for. Results attest a unique independent effect of each family member on the individual's convictions. In addition, the chances of daughters committing crimes increased when fathers' or siblings' convictions for non-serious crimes increased.

This Van de Rakt et al. (2009) study corroborates with previous studies claiming that crime is clustered in families (Farrington et al., 1996) characterised by siblings' engagement in criminal activity (Haynie & McHugh, 2003). Siblings sharing criminal tendencies stand out, as findings identified a significant relationship between siblings' convictions (Van de Rakt et al., 2009).

³³ Data from the Dutch Criminal Career and Life-course study data.

Various explanations for this sibling correlation have been forwarded, including nature of bonding (Slomkowski, Rende, Conger, Simons & Conger, 2001), socialising with siblings' peers (Haynie & McHugh, 2003), co-offending (Warr, 1993) and socio-environmental factors. This is due to the situation where siblings residing in the same household are exposed to the same constraints and drawbacks. Furthermore, convicted family members such as parents and siblings could expose one to crime by acting as "models" and through exposing another family member to "bad" delinquent peers. In this context, it would be very difficult for one to avoid entering a criminal career. However, intergenerational research has failed to address the direct and/or indirect role of peers in the continuity and discontinuity of offending. Parental criminality has nonetheless been found to partially accounts for siblings' similar criminal activity (Van de Rakt et al., 2009). Indeed, Rowe and Farrington's (1997) retrospective study of fathers and children shows a stronger correlation between fathers' crimes and children's crimes compared to the Van de Rakt et al. (2008) and the Van de Rakt et al. (2009) studies. Van de Rakt et al. (2008) attribute this to their unique prospective methodological design, which covers a nationally representative sample studied over the life course. Additionally, researchers do advise to interpret results with caution, as the data was based on official police data and the dark figure of crime was not taken into consideration, whilst families who are labelled tend to be monitored so the risk of being caught is higher.

In a more recent study, Van de Rakt et al. (2010)³⁴ tested two theoretical frameworks in explaining the concentration of offending in families across decades; the static and the dynamic theories. Frequency³⁵ of offending and timing of offending are significantly understudied in intergenerational crime research (Besemer, 2012) which investigations are related to static versus dynamic theories (Nagin & Paternoster, 1991). In this context, timing of offending refers to the age of the offspring when the parent is sanctioned by a conviction. Static theories (Gottfredson & Hirschi, 1990; Wilson & Herstein, 1985) highlight that the number of fathers' convictions influence children's delinquency but the timing of the fathers' criminal acts has no significant role. Results attest that both theories put forward valid claims for intergenerational crime research, corroborating findings from the recent study of Besemer (2012); individuals have their own unique crime propensity whilst such criminal tendencies change across the life-course as past crimes are linked to future crimes, which change is defined as "state dependence" (Nagin & Paternoster, 1991). Thus, the criminal careers of children are strongly influenced by

³⁴ The Criminal Career Life Course Study (CCLS) data base was used.

³⁵ Number of convictions of parents.

the number of convictions that their fathers receive. Few families are involved in crime but they commit a relatively large proportion of delinquent acts, with the Cambridge study claiming that around 10% of the families were responsible for around 64% of convictions (Farrington et al., 1996).

This Malta study explores the potential association of incarcerations between restricted family members, such as parents and siblings in a cultural context where the parents' successes are measured by the achievements of their children (Tabone, 1994), whereas loyalty and support are pivotal to unity within the Maltese family structure.

2.5.3 Gender related issues and partner choice

Most intergenerational crime research has focused primarily on fathers and males. However, this scenario could be predisposed by sample size; a case in point being the Besemer and Farrington (2012) study where the sample was relatively small and the maternal trajectories were not accounted for.

Examining maternal and paternal effects on the intergenerational transmission of antisocial tendencies (Doherty, Kouneski & Erickson, 1998) is necessary according to Thornberry et al. (2003). When a disrupted marriage exists, most children are likely to live with their mothers but children are also at risk when they are exposed to their antisocial fathers (Jaffee, Moffitt, Caspi & Taylor, 2003) such that assortative partnering could be considered as a risk factor. However, results from the British-Netherlands comparative study do not direct one towards a same-gender transmission (Besemer et al., 2011). This can be explained in terms of Murray and Farrington (2008) who claim that boys' and girls' reactions are gender specific or because females get fewer convictions and consequently fewer episodes of imprisonment.

The Besjes and Van Gaalen (2008) high risk G2 sample is comparable to the G5 sample in the Biljeveld and Wijkman (2009) study, however the link between parental convictions and those of the children was stronger in this study indicating a higher risk of intergenerational transmission (Biljeveld & Wijkman, 2009). Furthermore, the father-son link cannot be claimed to always be the most robust in accounting for intergenerational transmission, whilst the mother-son link proved to be strong over time. However, one has to analyse this in the context that females commit fewer crimes than males. With regards to serious offending, a child whose mother is a serious offender is at a higher risk of being a serious offender than any child whose

father is a serious offender (Biljeveld & Wijkman, 2009). On the other hand, Van de Rakt et al. (2009) showed that paternal effects were fairly stronger considering also that mothers committed less crime than the fathers did. Furthermore, maternal conviction history influenced sons' and daughters' convictions in a similar manner as fathers' convictions did (Van de Rakt et al., 2009).

Findings from the Thornberry et al. (2003) study in the US indicate that the intergenerational transmission of antisocial tendencies is gender specific, corroborating previous research of Moffitt, Caspi, Rutter and Silva (2001) and Wu and Kandel (1995). G1 and G2 mothers, unlike G2 fathers shared similar parenting styles confirming that the stability of parenting styles across generations is gender specific and thus cannot be generalised in line with the Edler, Caspi and Downey (1986) and the Simons, Whitbeck, Conger and Chy-In (1991) findings. This contrasts with the 40 year study carried out in the UK covering three family generations using the Cambridge study data, which failed to tackle gender-specific mechanisms. In the UK study, fathers were identified as the strongest predictors of sons' convictions as one parent is enough to account for the transmission across generations since parents tend to come from similar backgrounds (Farrington et al., 2009). In summary, findings from these studies point towards assortative partnering as well as parenting styles as risk factors to crime.

In the Farrington et al. (2009) study, females had few convictions and this explains why in this study intergenerational transmission of crime from G2 males to G3 females cannot be considered as significant. Crime was less intergenerationally transmitted from G1 females to G2 males and from G2 males to G3 females. Children tend to identify with the same sex parent (Farrington et al., 1996; Rowe & Farrington, 1997). However, this said, this study failed to explore directly gender specific issues linked to the cycle of crime. In summary, having one or two convicted parents did not augment the risk of crime continuity; one parent is enough as a risk factor (Farrington et al., 2009). The inclusion of risk factors such as family, socio-economic and individual factors explain the intergenerational transmission of convictions between G1 males and G2 males, which transmission is mediated by a series of risk factors. Nevertheless, it is clear that American studies, as opposed to British studies, are more inclined towards revealing gender-related intergenerational issues.

Most convicted females married convicted males, and convicted mothers often resorted to inadequate disciplinary measures, poor child rearing practices whilst children were exposed to marital discord. This contributes towards the explanation of the association between mothers'

and children's convictions and even more so for daughters. Furthermore, in line with the original findings of the Cambridge study, adults tend to mate with similar partners and convicted adults are no exception (Farrington et al., 2009). The Smith and Farrington (2004) study involving three generations of families of the Cambridge Study followed males from boyhood up to their 32nd birthday, their parents and their children. Both studies here thus emphasise that the phenomenon of assortative partnering is linked directly or indirectly to other risk factors related to parenting.

A prospective 20-year study covering from early childhood to adulthood was conducted using data from the Oregon Youth Study (Kim et al., 2009), the Couples Study and the Three Generational study. This covers three generations of families particularly targeting gender-specific pathways, underlying the continuity of internalising and externalising behaviours. Internalising behaviours represent emotions such as "fear, shyness and sadness" and psychological states such as "irritability and depression". Externalising behaviours represent actions such as defiance, aggression and delinquency. This is one of the few studies tackling gender-specific pathways and above all studying three generations of families (Kim et al., 2009). "Internalising behaviours" rooted in psychological and personality characteristics were measured through the use of a range of scales including depression (e.g. Birmaher, 1981; Radloff, 1977), irritability (e.g. Caprara et al., 1985), behaviour measures from the Oregon Youth Study and other checklists such as Achenbach (1992), as well as checklists/questionnaires focusing on negative emotions such as feeling shy, sad and afraid. On the other hand, "externalising behaviours" focused mainly on official arrest records, self-reports (Elliott, Ageton, Huizinga, Knowles & Canter, 1983), observers' reports (Achenbach & Edelbrock, 1983) and behavioural checklists (e.g. Achenbach, 1992; Rothbart, 1989).

Results of this robust analysis show that mothers' internalising behaviours are intergenerationally transmitted from G1 to G2 to G3 irrespective of the sex of the child, as attested by the internalising symptoms shared by their children. Disappointingly, mediating factors, such as the nature of parenting influencing "gender-specific pathways in the intergenerational transmission of internalising and externalising behaviours", were not investigated (Kim et al., 2009; p. 126). G1 mothers' internalising behaviours predict the externalising behaviours of the G2 men and G1 mothers' externalising behaviours also but to a lesser extent predict G2 men's externalising behaviours. The internalising and externalising behaviours of G3 girls were predicted by their fathers' equivalent internalising and externalising behaviours. Fathers influenced their sons minimally and thus findings here direct

one towards gender-specific mechanisms underlying the intergenerational transmission of internal and external behaviours (Kim et al., 2009).

Findings from the Kim et al. (2009) study also confirm the theory of “assortative partnering”; that is adults tend to establish intimate relationships with partners sharing similar backgrounds, corroborating with previous evidence Brennan, Hammen, Katz and Le Brocque (2002). This phenomenon is therefore explored in this research within Malta, a society where parents enquire about a prospective in-law (Tabone, 1994), and as Abela (1991, p. 42) highlights compared to other European countries “married life in the average Maltese family is society centred”. The closed-knit factors that feature in Malta influence the life of married partners, whom in turn are expected to contribute towards the well-being of society through embracing values that nurture a successful marriage. In other words, the values of closed-knit society influence to a great extent the life of married partners. Moreover, children are expected to embrace the values of their parents whilst these values are passed on across generations as “values are mediated through the family” (Abela, 1991, p. 49). The size of the islands, its culture and the geographic boundaries undoubtedly influence partner choice and marriage in Malta. Marriage is likely to happen between similar partners who live in close neighbourhoods and engage in similar activities (Rowe & Farrington, 1997), linking the assortative partner phenomenon to environmental issues such as residing in neighbourhoods inhabited by people sharing similar backgrounds (Falk & Fischbacher, 2002). Wikström (2006) highlights that the perception-choice process occurs within an environmental setting embracing a series of social factors, and such factors could be likeable “causes of causes” (Wikström, 2009). In other words, this theoretical framework not only points towards the explanation of a concentration of similar families within a neighbourhood but could also explain how partner choice is often restricted by familial roots.

2.5.4 Exposure to crime and intergenerational continuity

A number of researchers in the UK (Farrington et al., 1996, 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997) point out that co-offending between fathers and children is rare. The Cambridge study, for example, implies that direct learning or coaching between the parental offender and the child is unlikely because criminal fathers actually denounce their sons’ criminal tendencies (Reiss & Farrington, 1991), and the timing of the fathers’ convictions does not exert significant influences (Farrington et al., 2009). These claims contrast starkly

with early studies carried out in the Netherlands claiming that crime continuity is “promoted” through fathers and sons as co-offending partners where particularly boys as children are “crime students” (Van Egmond, 1994). Nonetheless, exposure to deviant role models increases the possibility of intergenerational transmission and this helps to explain findings of a number of studies (Blazei et al., 2006; Jaffee et al., 2003; Van de Rakt et al., 2010) that claim that separation from the criminal parent can reduce the chance of future offending.

Co-offending³⁶ peaks during late teenage ages, and involve mostly youths as accomplices (Schaefer, Rodriguez & Decker 2014). As one reaches the twenties s/he resorts to lone offending (Andersen & Felson, 2010; Felson, 2003; McCord & Conway, 2002; Reiss & Farrington, 1991; Van Mastrigt & Farrington, 2009). Also, co-offending with brothers was significantly high when the brothers’ ages were similar. Co-offenders tend to be of the same age and sex, living close to each other or close to the offence locations (Farrington & West, 1990). The latter blend the concepts of the age-crime curve to offence location. In summary, this links Shaw and McKay’s (1942) concept of disadvantaged neighbourhoods with that of Sampson (2012) claiming that such neighbourhoods fail to provide social cohesion which is needed as a buffer to crime. In the local context, the offender-residence hotspots identified by Formosa (2007) could act as “crime promoters” and also serve as an indicator for low levels of social cohesion.

Besjes and Van Gaalen (2008) identified the mother as the key figure in the intergenerational transmission of crime, pointing towards exposure to crime specifically claiming that those children who reside in the same house with the delinquent parent are at greater risk to “inherit” this criminal inclination. This could be linked to the Dutch study of Nijhof et al. (2009), where results specify that the more serious the crimes committed by mothers, the less serious crimes being committed by their children. In summary, reduced exposure to a criminal mother, as a result of her incarceration, could turn out to be beneficial rather than harmful to the child. Experiments carried out by Hjalmarsson and Lindquist (2009), testing the timing of paternal offences and the quality of father-child relationships revealed that this role model hypothesis³⁷ holds particularly for juvenile sons. Also parental incarceration turned out to be beneficial to

³⁶ Reiss (1988) defines co-offending as an act “committed with the simultaneous presence of at least two offenders”. Thus using Reiss definition someone committing an armed robbery on his/her own is to be classified as a “solo-offender” even if s/he might have planned this criminal activity with accomplices.

³⁷ The role model hypothesis highlights that fathers influence particularly their sons whilst mothers influence distinctively their daughters (Bowles, Gintis & Osborne Groves, 2005).

children and this could be also explained in terms of the role model hypothesis as children lose contact with the criminal parent and exposure to criminal behavioural tendencies.

In a five-generation study using conviction data between 1882 and 2007, Bijleveld and Wijkman (2009) identified 198 high risk offenders attending a reform school for children whose parents lost control over them and who already had petty delinquency charges. This sample represented G2, and tracer studies were carried out to identify their parents and step-parents (G1). Retrospective methodologies were adopted to study G1 and G2, whilst the successive three generations were studied prospectively. The analysis distinguished between convictions of parents prior and post to the birth of the child. This study focused on collecting crime data based on registered convictions, and data related to demographic records³⁸.

Delinquency across the generations was stable with males from the G3 sample onwards committing more crimes than females. G5 committed the least crimes, which could be explained by the fact that their life course during their study period was less than that of the other generations due to their age. From G3 to G4³⁹ to G5⁴⁰, 50% of the children had one delinquent parent as a minimum (Bijleveld & Wijkman, 2009). Investigations also considered serious delinquent acts as investigated by Loeber, Farrington and Waschbusch (1998b) and as forecasted, the percentage of serious offences was lower. On analysing timing of convictions, results show that exposure to the delinquent parent provide one with a clearer explanation of the mechanisms underlying the intergenerational transmission of crime as against hereditary and labelling perspectives (Bijleveld & Wijkman, 2009).

Van de Rakt et al. (2010) studied the effects of timing of father's convictions on their children. They found clear evidence that the risk of children's convictions increased following the father's convictions through learning, with such effects faded away, suggesting decay over time (Sampson & Laub, 1990; Sutherland, Cressey & Luckenbill, 1992). Furthermore, decay is influenced by subsequent paternal offending and as with every parental conviction; the process of decay is slowed down due to reinforcement (Akers and Jensen, 2003). Sampson and Laub's (1990) "cumulative learning effect", which states that those children who are frequently exposed to crime internalise this activity and perceive it as "normal", was not supported here.

³⁸ The "Dutch genealogical and municipal records" were used to trace back the G1 and trace forward the G2, G3, G4 and G5. Migrants were defined as "lost" and consequently not included in this study. Data about birth and death dates, marriage and separation dates were collected from archives with the names indicating the sex of the subject (Biljeveld & Wijkman, 2009).

³⁹ G4: fourth generation

⁴⁰ G5: fifth generation

Following divorce, children are separated from their criminal fathers and thus the effects of learning are lost, corroborating the findings of Jaffee et al. (2003) and Blazei et al. (2006). According to the Van de Rakt et al. (2010) study, learning is at its peak during adolescence and not adulthood. However, this study fails to address the mechanisms underlying unlearning and actual learning processes.

2.5.5 Other risk factors and the cycle of crime continuity

This section outlines risk and mediating factors linked to the intergenerational transmission of crime. The majority of these risks are either “promoters” or “preventers” (Ekblom, 2010) of crime irrespective of whether or not one has a restricted or extended family member partaking to criminal activity. A combination of risk factors exerts a “cumulative effect” (Besemer, 2012). When risk factors (for example substance abuse and low academic achievement; Farrington, 2000; Loeber & Stouthamer-Loeber, 1986) accrue there is more crime (Farrington et al., 2009; Loeber, Farrington, Stouthamer-Loeber & van Kammen 1998c; Thornberry et al., 2003) as the accumulated consequences limit one’s opportunities for change (Moffitt, 1993).

Findings from the study of Farrington et al. (2009) explored in section 2.5.2 could be explained in terms of labelling of families and poor parental supervision exercised by criminal parents. Socio-economic factors such as lack of home ownership and unemployment were deemed as robust predictors of convictions from the G2 males to the G3 males when compared to family factors. Indeed, the extent to which crime is intergenerationally transmitted decreases when a series of variables inclusive of family, individual and socio-economic factors were included. In summary, Farrington et al. (2009) highlight that the intergenerational transmission of crime is mediated by other factors varying from individual to family to socio-economic variables, pointing towards an indirect rather than a direct transmission.

Smith and Farrington’s (2004) study focusing on parents, children and their partners confirm that intergenerational transmission is to a certain extent influenced by other factors rooted in poor parenting skills and poor parental supervision. Community level research (Torrente, 2001) sheds light on those who feel socially excluded. These people face socio-economic constraints and uncertainties, and are consequently vulnerable (Wohlfarth, Winkel, Ybema & van den Brink, 2001) and at risk of resorting to crime (Torrente, 2001). Furthermore, other stressors such as environmental factors could exacerbate this intergenerational transmission

(Farrington et al., 1996). On the other hand, findings from the Van de Rakt et al. (2009) study direct attention towards learning by imitation (Farrington et al., 2001) and socialising with same peers (Haynie & McHugh, 2003), which might to some extent explain the strong link between siblings' convictions and co-offending siblings.

Various risk factors were studied in the Rochester Youth Development Study (Browning et al., 1999), including parent-child attachments; parental involvement in children's activities and the nature of parental supervision; school, socio-economic and peer group related factors. Findings suggest that factors such as facing economic strains (occupying a low position on the social ladder), together with other scenarios eliciting stress, negatively affected the parent-child relationships, parental control over adolescent children. Moreover, these effects fade gradually on transition from adolescence to adulthood (Browning et al., 1999). These results corroborate with findings from the Oregon Youth study (Weisner & Capaldi, 2003) and a number of follow-up studies (Capaldi, Kim & Owen, 2008); where parents and peer-related pressures were identified as risk and protective factors (Kerr, Capaldi, Pears & Owen, 2009).

A follow up of the Rochester Youth Development Study was carried out by Thornberry et al. (2003), which explored the intergenerational transmission of delinquency focusing on two mediating variables; economic problems and parenting conducts. Results show a modest intergenerational transmission of delinquency mediated by economic problems and parenting conduct behaviours with effects fluctuating according to the G2 gender. When G2 were identified as being warm and consistent parents, their children scored low on antisocial tendencies. In addition, the early-onset of antisocial behaviour (Farrington, 2004; Hawkins et al., 1998) explains the intergenerational stability of antisocial tendencies from the G2 to the G3 since early onset is closely linked to a longer criminal career (Farrington & West, 1993). Lives tend to be rooted to some extent in family-related factors such as parenting skills and economic problems (Thornberry et al., 2003).

McCord (1999) investigated the intergenerational transmission of crime and alcoholism focussing on two mediating variables; fathers' aggression and mothers' competence skills. The results confirmed the initial claims that crime runs in the family. Alcoholism and crime were found to run in the family and, according to McCord (1999), this could be explained, to some extent, by the poor social environment exacerbated by socialisation processes characterised by aggression. Most alcoholic and criminal fathers resorted to aggressive behaviour in their family units and entered parenthood together with mothers who were mostly classified as incompetent.

Maternal competency skills serve as a buffer to future deviance whilst the paternal aggressive tendencies influence alcoholism and crime and propagate the continuity of such behaviours, especially that of crime across subsequent generations. Thus, aggressiveness influences more criminality than alcoholism irrespective of the father's alcoholic tendencies. However, it was clear that the intergenerational transmission of crime is mediated by maternal competence (McCord, 1999).

Hjalmarrson and Lindquist (2009) also focused on the analysis of two mechanisms; social background and household heterogeneity. Findings from twin and adoption studies indicated that socio-economic factors and genetic factors have a role to play in the continuity of crime from fathers to sons and daughters. However, poverty did not render one a criminal but rather the combination of factors did, such as paternal crime and parental instability⁴¹ that explain criminality across generations of families. When comparing crimes of siblings, the study showed that that family background plays a key role in intergenerational transmission of crime. Experiments focusing on comparing mono and dizygotic twins showed that inherited genetic traits may be essential in explaining the incidence of serious traffic offences particularly since this offence category is dominated by the prevalence of drunk driving. However, adoption studies yielded weak links to genetic factors in explaining crime across generations. The findings suggest underlying mechanisms that explain the intergenerational transmission of crime include; socio-economic traits shared by generations of families, genetic factors, and parental instability and the role-model hypothesis (Hjalmarrson & Lindquist, 2009). The findings were in line with those of a British study of twins carried out by Jaffee et al. (2003). Children born into families laden with problems such as mental health issues and substance abuse are at a greater risk of following the criminal paths of their parents (Hjalmarrson & Lindquist, 2009). This supports the contention that human beings are social beings and the human behaviour is the result of the gene-environment link (Moffitt, 2005).

In a follow-up study Ramakers, Bijleveld and Ruiters (2011) used a sub-set sample of the original Bijleveld and Wijkman's (2009) five-generation study, focusing on the intergenerational continuity of serious offending mediated by risk factors such as educational attainment and occupational status. Low-occupational status has also been claimed by Farrington (2002) to be one of the "driving forces" accounting for intergenerational

⁴¹ Parental instability refers to physiological and psychological states that hinder one's well-being examples include mental health issues and misuse of drugs.

transmission whilst higher occupational status reduces “anomie” which Merton (1938) classified to be the stumbling block to legitimate socio-economic success. Findings from this study corroborate with the literature that crime and occupational status persist across generations of families thus limiting one’s possibility of escaping “the family tradition”. Also, results confirm that education is the key to success and progression in the social ladder thus serving as a buffer to crime (Ramakers et al., 2011).

The Besemer et al. (2011) British-Netherlands comparative study indicated that parental incarceration taking place between the birth of a child and his/her nineteenth birthday was a better crime predictor than parental convictions for the UK sample only. These results could be interpreted in a way that in the Netherlands adolescents might desist from crime after their nineteenth birthday whilst the persistence in offending might feature in the UK beyond this age. However, one also has to consider the context within which these studies are carried out; the penal policy of countries, the social contexts and the time frame of crimes studied. Findings here point towards the social stigma children of prisoners face and socio-economic constraints following imprisonment of a breadwinner. Exposure to parental imprisonment is a key factor in explaining the link between parental imprisonment and the offending of sons. Results show that the more parents experience imprisonment, the greater the influence of this on their children (Besemer et al., 2011). However, those adults who faced imprisonment before entering parenthood are likely to have experienced what Sampson and Laub (2005) define as a turning point.

2.6 Intergenerational mechanisms

Research in the field falls short of prospective longitudinal designs aimed at addressing the underlying mechanisms that investigate how and why crime runs in families (Bijlevald & Farrington, 2009; Putkonen et al., 2002; Thornberry et al., 2003). Moreover, the use of intragenerational methodological frameworks has turned out to be useful in intergenerational crime research. The most nominal criminological question is why people commit crime. However, for the purpose of this study a key issue is to what extent is crime stable across generations of families. If crime remains stable between generations of families, then why is this so? If there are any marked discontinuities then how can they be explained? However

studies, particularly those adopting the criminal career methodological framework, focusing on identifying risk and/or mediating factors have yielded a significant body of research findings.

The Hjalmarsson and Lindquist (2009) study refers to socio-economic constraints, genetic factors and parental stability, particularly, highlighting the fathers' role model hypothesis as the three underlying mechanisms. Learning from role models also featured in the Duncan, Kalil, Mayer, Tepper and Payne (2005) study as against socio-economic variables and parenting styles with evidence supporting, to some extent, the nature-nurture interaction. On the other hand, Farrington et al. (2001) and Farrington (2002, 2011) outlined six risk factor mechanisms that could help one to understand why crime runs in families as depicted in Table 2.2.

Table 2.2 Risk factor mechanisms that help one to understand why crime runs in families

1	The experience of a series of risk factors contemporarily such as living in areas laden with socio-economic problems, poor academic background and low occupational status thus highlighting that crime is one of the factors in the anti-social cycle
2	partner choice is restricted by one's lifestyle and one looks out for partners that are quite similar to one's background
3	social-learning through living with criminal parents and siblings with the latter particularly explaining co-offending with siblings
4	entering parenthood early, where one is unable to provide children with strong morals and adequate child rearing
5	hereditary factors as outlined by adoption studies such as that carried out by Mednick, Moffitt, Gabrielli, and Hutchings (1986)
6	labelling of criminal families (Van de Rakt et al., 2009)

There are difficulties in identifying which of these six mechanisms, or combination of mechanisms, accounts for crime propagation across generations of families, as these mechanisms "are not mutually exclusive and they are empirically intertwined" (Besemer, 2012, p.2). Nonetheless, in this respect, it is anticipated that intergenerational transmission is stronger amongst more persistent offenders (Besemer & Farrington, 2012). In a more recent study, Besemer (2012) analysed transmission mechanisms linked to intergenerational continuity, by adopting a risk factor approach focusing on frequency and timing of parental convictions on

offending of their offspring. Results support both static and dynamic theories, consolidating previous findings from the Van de Rakt et al.'s (2010) study. Also, more support was found for the impact of a criminogenic environment on the likelihood of becoming an offender than for the social learning perspective. Children of convicted parents are likely to grow up in a criminogenic environment characterised by poor housing, lack of interest in education and low income amongst other risk factors (Besemer, 2012). However, this study failed to analyse the "temporal sequence of risk factors", and also failed to distinguish between risk and mediating factors.

Van de Rakt et al. (2008) outlined three mechanisms; specific, general static and general dynamic transmission of behavioural tendencies across generations. Specific transmission is rooted in Sutherland's Differential Association Theory; children socialise with their fathers, who are role models for anti-social behaviours and through this socialisation, children internalise these antisocial norms and values. Thus the longer the time spent with anti-social fathers, the greater the possibility of children's engagement in crime (Sutherland et al., 1992). General static transmission is linked to pre-determined factors such as biological factors (DNA) which are life-long as identified in twin (Carey, 1992) and adoption studies (Bohman, 1981) as well as personality factors such as weak self-control (Gottfredson & Hirschi, 1990). On the other hand, through general dynamic transmission, a series of factors, including antisocial tendencies, are transmitted but there are situations that may redirect such transmission. These include parental divorce and separation from the criminal parent (Juby & Farrington, 2001), stable employment and marriage (Laub & Sampson, 2003), and migrating from neighbourhoods laden with socio-economic constraints to better neighbourhoods (Van de Rakt et al., 2008).

The Thornberry et al. (2003) study adopted an interactional theory (Thornberry, 1987; Thornberry & Krohn, 2001) echoing Edler's (1997) life-course perspective of crime trajectories. As Edler (1997) points out, parents have to take decisions that influence their life and particularly that of their children, highlighting those particular misfortunes that mar the lives of both generations; this concept is referred to as the 'linked lives' concept. Various intragenerational factors such as parenting styles (Jang & Smith, 1997) have a role to play in child rearing such that ineffective parenting and poor parental supervision have direct effects on children's development (Sampson & Laub, 1993) and subsequent delinquency (Hirschi, 1969).

Thus, these intragenerational factors have repercussions, the effects of which materialise in the resulting intergenerational impacts (Thornberry et al., 2003). Consequently, Thornberry et al. (2003) identified three paths that account for intergenerational transmission. The first refers to a direct path that does not refer to the underlying causes and mechanisms, highlighting that anti-social parents bear anti-social children (Farrington et al., 1998; Huesman et al., 1984). The second is an indirect path within an interactional framework comparing human behaviour to the loops of a chain with one influencing the other throughout the life course. As Belsky (1984) pointed out, aggressive parents with limited socio-economic resources enter parenthood at a disadvantage. Their ineffective parenting style affects negatively the behaviour of their children, who tend to be delinquent, in turn limiting their future parenting skills. The third path refers to parental position on the social ladder, as socio-economic status tends to be stable across generations (Rodgers, 1995). Lack of financial resources generates stress, which in turn affects the nature and quality of the parent-child relationship. This is mirrored in poor parenting skills (Belsky, Woodworth & Crnie, 1996) that significantly affect development of anti-social behaviours in children (Thornberry et al., 2003).

Further to the above, Sutherland and Cressey (1978) argue that through the adoption of a learning perspective, recidivists have learnt that crime pays, and as parents they tend to provide more learning opportunities as social role models (Bandura, 1973). In this regard, one would expect the persistent offenders (Moffitt, 1993) to be stronger “teachers” and role models for crime. Farrington (1997) highlights that, the transmission of crime from parents to their offspring is not direct, but runs in families through the “continuity of a constellation of antisocial features”.

The above discussion begs the question of what crime transmission means. Does this imply a predisposition towards offending or transfer of resources for offending through “teaching”? In other words, does this imply that what Ekblom (2010) defines as the “readiness to offend” is being transferred across generations? “Readiness to offend” is closely linked to emotional and motivational situations, which represent current scenarios and/or experiences in life that activate crime; examples include unemployment history, residing in neighbourhoods laden with problems, exposure to a crime and stress. Moreover, individual factors such as aggression, low self-control and antisocial tendencies represent one’s predisposition to offend at the

offender level. These, together with available resources needed to avoid⁴² or commit⁴³ crime (Ekblom, 2010), perceptions emanating from past criminal attempts and readiness, either promote or prevent crime. Similar to the study of risk factors, such causal components are not essentially self-determining. At face value, Ekblom's Conjunction of Criminal Opportunities (CCO) is deemed as useful for the design of crime and preventive intervention programmes. Rational Choice Theory (Cornish & Clarke, 1986), Crime Pattern Theory (Brantingham & Brantingham, 2008) and Routine Activities Theory (Cohen & Felson, 1979) have set the foundation for CCO. Furthermore, this framework adopts an ecological framework and is comparable to aspects of Wikström's (2006) Situational Action Theory. Nonetheless, CCO makes one reflect on adopting the concepts of "crime preventers" and "crime promoters" to understand better continuity and discontinuity of offending. Human beings (restricted and extended relatives involved in crime; delinquent peers; co-offending partners; discouragement by family and friends; naming and shaming) and various risk factors (education; employment and socio-economic variables; neighbourhood; offender and poverty hotspots) outlined in this chapter could either act as preventers before, during (repellents) or after the criminal event, but could also play roles that increase the risk of criminal activities.

2.7 Using theory to understand the intergenerational transmission of crime

The general theory of crime of Gottfredson and Hirschi (1990) is the most cited theory (Kempf, 1993) in intragenerational and intergenerational research. As confirmed by Pratt and Cullen's meta-analysis (2000), low-self-control predisposes crime. Self-control is supposedly developed during the first ten years of life through socialisation with parents who, in turn, are responsible for the development of their children's self-control. In this respect, low self-control is said to originate in childhood as a result of poor parenting practices. Research such as that of Hirshi (1969) and Wikström (2004, 2006, 2008) has indicated that self-control is related to other constructs including social control and morality. Indeed, Hirschi's (1969) Social Control Theory claims that strong parental attachment bonds represent external control mechanisms, which typically restrain crime (De Li, 2004), while social norms strengthen or restrain behaviours (Acock & DeFluer, 1972; Skinner & Cattarello, 1989; Terry & Hogg, 1996). De Li (2004) highlights that self-control, as an internal means of control, and social control as an

⁴² Skills for living honestly.

⁴³ Availability of trusted co-offenders.

external means of control, do interact but their causal effects are interdependent. Furthermore, affiliation to religious organisations fosters social cohesion (Hervieu-Léger, 2003) and moral constraints (Molier, Ellian & Suurland, 2011) that could serve as guidelines regulating conduct behaviour.

The notion of morality as a construct in understanding and explaining crime has been largely ignored (Antonaccio & Title, 2008; De Li, 2004) except for work lead mainly by Wikström's (2004) Situational Action Theory (SAT). This theory studies the cohesive bonds connecting the individual, the setting and action. Wikström (2008) highlights that SAT combines routine activity theory (Cohen & Felson, 1979) rooted in environmental criminology, self-control theory (Gottfredson & Hirschi, 1990) and rational choice theories (Clarke & Cornish, 1985).

We are all born in a family setting not of our choice, in a particular era, and in a particular country with its own traditions, norms and moral standards. The latter are the founding ingredients for the initial development and setting of our activity field. As one grows old, becomes more socially independent and an active societal member, the activity field expands, with neighbourhood playing a role in the development of the activity field (Wikström, 2008). This theory acknowledges the role of self-control but claims that morality is the key construct as one's moral guidelines are the building blocks for perceiving options as alternative choices that include offending, whilst self-control is conditioned by one's morality (Wikström & Svensson, 2010). This theory also highlights the role of the setting and the nature of criminogenic exposure to which individuals are subjected (Wikström, 2009; Wikström, Ceccato, Hardie & Treiber, 2010), since a crime occurs in a setting influenced by moral standards and self-control mechanisms mediated by criminogenic characteristics such as opportunities, friction and monitoring levels (Wikström, 2008).

While marriage has been defined as a turning point since the Gluecks' 1950 study (Laub & Sampson, 2003), living with a partner manifesting similar anti-social tendencies can result in reverting to criminal behaviour (Du Fort, Boothroyd, Newman & Kakuma, 2002; Rowe & Farrington, 1997). Consequently, this lays fertile grounds for intergenerational transmission as parents fail to cater for the provision of strong morals. In view of this, crime committed by parents is defined by Skardhamar (2009) as an "indicator of moral standards" building on Wikström's (2004) concept of crime as an act of moral rule breaking.

From a social interactionist perspective (Glaeser et al., 1996) and also a differential association theoretical framework, it is predicted that people influence each other's behaviour (Falk &

Fischbacher, 2002⁴⁴). The latter claim that criminal behaviour is taught (Le Blanc, 2008) in intimate groups that ultimately reinforce law-breaking activities as criminal parents model crime through values, attitudes and techniques transmitted through learning (Sutherland & Cressey, 1978; Sutherland et al., 1992). On the other hand, social interactionists claim that one is more crime prolific in “bad environments” as behaviour is conditioned by the behaviour of others in the social context highlighting that people of similar characteristics choose similar neighbourhoods (Falk & Fischbacher, 2002; Bottoms, 1995).

The correlation between socio-economic status and crime prevalence as measured by variables related to standard of living (Hsieh & Pugh, 1993; Kawachi, Levine, Miller, Lasch & Amich III, 1994) has generated a large volume of empirical interest, and to certain extent contradictory evidence. Social class did not seem to have a key direct influence on adult crime in the Dunaway, Cullen, Burton and Evans’ (2000) study addressing the “class-crime debate”, which uses self-report surveys⁴⁵ corroborating with Tittle and Meir (1990) findings. On the other hand, socio-economic factors have been found to have an indirect effect on crime through the family mechanisms (Sampson & Laub, 1993; Fergusson, Swain-Campbell & Horwood, 2004). Parental stress, whether originating from financial or emotional constructs, thwarts affective parenting since parenting skills have deep “intergenerational and developmental roots” (Thornberry, 2009). As discussed above parents facing financial stressors (Patterson, Reid & Dishion, 1992) tend to react negatively (Moffitt 1996, 1997) to their children’s needs. These in turn behave poorly triggering their parents, who resort to coercive techniques rendering their children at risk of offending as conflict and turmoil mar their life (Skardhamar, 2009).

Further to the above, the correlation between inequality, economic deprivation and crime (Blau & Blau, 1982; Sampson, 1985) can be explained by adopting a social disorganisation framework (Park & Burgess, 1924; Shaw & McKay, 1942), as families may be constrained to reside in neighbourhoods laden with social-problems because of their economic conditions. This generates extra inconveniences and strains (Agnew, 1992) on themselves and on those families already residing there (Kawachi & Kennedy, 1997; Wilson, 1987). The relationship between land use and the social facets of the environment (Hirschfield, 2008) is linked to crime, as socially disorganised neighbourhoods characterised by poor collective efficacy (Sampson &

⁴⁴ This study analysed the social interaction of people and the effects of peer pressure in a controlled environment set up in a way that subjects experienced different neighbourhoods.

⁴⁵ Self-report surveys were used to gather adult crime data by asking participants about the crimes committed in the past 12 months. Family income data and unemployment rates data were derived from the Bureau of Census.

Wikström; 2008) are known to affect crime rates (Sampson, 1986; Veysey & Messner, 1999). Furthermore, this forced residence choice reinforces social exclusion (Houchin, 2005) and negatively affects social cohesion and the establishment of social ties, which are the building blocks for informal social control (Warner, 2007). Another factor to consider is unemployment, which renders families at risk of poverty and social isolation (Linn, 2008). Unemployment tends to incite (Arvanities & Defina, 2006) or serve as a catalyst to crime (Raphel & Winter-Ebmer, 2001).

Crime is also location-bound as certain geographic areas have been found to be criminogenic as a result of “transgenerational transmission” (Shaw & McKay, 1942) characterised by disorganisation and the absence of social controls (Sampson & Groves, 1989). Thus, criminal attitudes and behaviours are culturally transmitted. The loss or the failure to achieve “positively valued stimuli”⁴⁶, and the presence of “negative stimuli”⁴⁷ generate what Agnew (1992) defines as strain, which in turn instigates negative feelings that serve as fertile grounds for crime. However, if one is resilient then crime and delinquency do not always follow (Agnew, 1992). Unemployment posits a real danger to the wellbeing of the social fabric of the neighbourhood, (Hooghe, Vanhoutte, Hardyns & Bircan, 2011) since those living in poverty feel frustrated as a result of the perceived social injustice (Blau & Blau, 1982) of occupying a lower position on the social ladder, disrupting the equilibrium as they commit more crime (Kawachi, Kennedy & Lochner, 1997; Wilkinson, 1997).

Taking the Maltese context, offenders reside in areas characterised by poverty as identified using NNH analysis of poverty and crime (Formosa, 2007). Two particular localities, Valletta and Bormla, are identified by Formosa (2007) as offender-residence hotspots. Since the post-war era both bear witness to dilapidated housing and migration of lower-earning persons. Bormla and Valletta host a significant number of ex-offenders and consequently the residents of both localities tend to feel stereotyped and labelled. Furthermore, the children of the residents living there suffer stigmatisation. This stigma has been inherited across generations since the post-war period (Azzopardi, Formosa Pace, Muscat & Scicluna, 2013a). In summary, crime could persist in such neighbourhoods as these areas attract more offenders than law-abiding citizens in their vacant dwelling units. Ex-inmates would choose to live in these neighbourhoods either because of acquaintances living in the area, family roots, or convenience

⁴⁶ “Positively valued stimuli” include money, status and respect.

⁴⁷ Negative stimuli include childhood neglect, negative school experiences, homelessness and residing in disadvantaged neighbourhoods.

as well as vacant dwelling units that could be used for squatting. In this context, crime continuity could be more related to the influence of crime attractors and the housing market. Thus it is important to employ a spatial analysis to understand the potential continuity of convictions across generations in this Malta study.

The following section summarises the main points arising from the reviewed literature, and identifies the gaps in knowledge of the intergenerational transmission of crime.

2.8 Summary of findings

The concentration of offending in families has a long history of research, with studies dating back to the 1950s. Criminal career research has set the foundations for the study of intergenerational transmission of crime, as theory and method blend well together. Most research to date has used a criminal career database to generate its sample. Thus most studies do not account for unreported crime.

Studies demonstrate that crime clusters in a small number of families. Having a convicted parent is one of the most important family risk factors in intergenerational transmission. That is, it is not known what potential role family members play in the reduction of, or covering, of the incidence of a related crime suspect. Most research has focused primarily on exploring the association of fathers' convictions to those of their sons. There is also an increased interest in studying concentration of siblings' criminal activity within a family. However, few studies have tackled potential gender specific pathways. Most intergenerational research has sought to study the phenomenon by linking "any life time offending of the parent to any life time offending of the child" (Besemer, 2012, p. 1). Thus, few are those studies that have explored the impact of timing and frequency of parental offending on their children. These risk factors as well genetic factors, neighbourhood effects and peer influences as mechanisms to the transmission of crime are certainly understudied. Moreover, the relationship between intensity of criminal careers and seriousness of offending requires further investigation to fill in the gaps in knowledge.

Various risk/mediating factors (for example: family; individual; low-academic; socio-economic; labelling; assortative partnering; genetic; learning; environmental; exposure; co-offending siblings) have been identified as "promoters" (Ekblom, 2010) in crime continuity.

However, these risk factors are not exclusive for the understanding of intergenerational transmission of crime. Such risk and mediating factors could be part of a larger syndrome of anti-social behaviours. Furthermore, many studies have separately shown that these risk factors blend together. The presence of multiple risk factors (Besemer, 2012) as a series of “causes of causes” (Wikström, 2009), together with the accumulated consequences, limit one’s opportunity for change (Moffitt, 1993) and to break away from the criminogenic environment. However, it is not clear which risk and mediating factors explain intergenerational transmission. In summary, the inclusion of risk factors and the exclusion of others in studying crime continuity undoubtedly limit the investigation of this transmission of crime within families.

Findings from the studies reviewed in this chapter, point towards the concept that lives are linked (Edler, 1997), in part because children share their parents’ genes (Thornberry, 2009). The correlation between parents’ crime and their children’s crime is claimed to be significant (Johnston, 2006) and siblings who are exposed to the same constraints and criminogenic environment (Van de Rakt et al., 2008) are likely to offend (Rowe & Farrington, 1997). However, there is a gap in knowledge as to what extent lives, are linked, since studies have not explored the potential role of different families as social networks of crime. It is not yet known whether there is collusion and interaction between offenders belonging to different families characterised by a cluster of convictions.

2.9 Conclusion

The family as a social institution plays a key role in society, as it is primarily responsible for child rearing and the provision of social control that regulates human behaviour. This positive perspective of the family is, however, marred by the presence of negative aspects such as crime, which could run across generations of families. Interest in studying the role of the family in crime, and the association of convictions between individuals belonging to the same family has increased considerably. This type of research, referred to as intergenerational crime research, is a slowly growing body of knowledge (Van de Rakt et al., 2010) highlighting that lives are linked (Thornberry et al., 2003).

Many studies have provided evidence that crime runs and concentrates in families, and so do convictions. The criminal behaviour of relatives such as that of parents and siblings posits a

family risk factor to crime continuity. However, there are other risk factors that “promote” crime continuity such as socio-economic constraints; partner choice; poor academic background; disorganised neighbourhoods; labelling; exposure to crime; substance abuse and parenting styles. This said, however, the mechanisms that could explain how and why crime runs in families are considerably under-studied (Besemer, 2012). Nonetheless, the robustness of claims about the role of the family in crime continuity generates considerable controversy since people change over time and so do their behavioural tendencies (Baltes & Nesselroade, 1984; Brim & Kagan, 1980; Dannefer, 1984).

Most studies have identified the family either as a risk or a protective factor in the cycle of crime. Furthermore, intergenerational research has yielded prominent evidence attesting to the clustering of crime in families, mediated by factors that “promote” continuity across successive generations. There is, however, a need to study these factors further and this study identifies the Maltese Islands as a country where such a study can be undertaken. The Islands are an ideal space to study the intergenerational component since family life is of utmost importance (Abela, 1991). Family ties are very strong, whilst loyalty and support are pivotal to family unity (Tabone, 1994). Malta is an island state (Formosa, 2007) where the role of the family is shaped by Christian values. Furthermore the size of the islands renders its lifestyle into that of a socially knit community. This in turn eases the establishment of support networks between family members. Indeed in this respect, Malta can perhaps be considered more cohesive than other European countries. Moreover, Malta has a small prison population in absolute terms and this opens up the prospect of undertaking a full enumeration of incarcerated individuals, rather than using a sample of this population. Also, children always played an important role and parents’ successes are measured by children’s achievement (Tabone, 1994). In summary, these are potentially rich venues into continuity and discontinuity of convictions in a cultural context such as Malta, where the Maltese family is characterised by unity and respect (Tabone, 1987) underpinned by Christian cultural traditions.

The above begs the question of whether family and kinship ties in Malta facilitate and encourage the role of the ‘crime promoter’. Studies to date have predominantly been carried out in large countries, and the role of family in intergenerational continuity could be somewhat different in Malta. The cultural and demographic factors could act as possible risk factors, rendering it difficult for one to escape from the criminogenic environment in Malta whereas in other countries it might be easier to do so. This may be further compounded by its small geographic space and boundaries. Thus, studying the phenomenon of intergenerational

continuity in a small island, where social life is shaped by the islands' size and closed-knit family relationships, is new research that adds value to existing knowledge. To this effect, this study examines the "laboratory" of Malta to link offending to family structures; explore the potential continuity of offending across and within generations, and explore the transmission risk factors associated with intergenerational continuities. This study aims to create a rich dataset that had not existed before, to study the under-researched questions in Malta.

The following chapter provides an overview of the Maltese islands; its family life, culture and lifestyle. It also sets the context as it provides an outline of incidences of crime focusing on reported offences as per filed police reports, and identifies the aspects that could be investigated to explore, for the first time, the phenomenon of intergenerational continuity of offending in Malta.

Chapter 3: Malta - An Overview

3.1 Introduction

This chapter provides a demographic and cultural overview of the Maltese Islands in order to contextualise the social setting of this research. This serves as the basis for the understanding of the context within which the offenders reside and depicts the main characteristics that define family life in Malta. Also, this chapter sets the framework for understanding the crime patterns of the Maltese islands with the use of police recorded crime data and an overview of reported offences and solved cases.

The main objective of this chapter is to outline the familial and cultural aspects related to values, kinships ties and marriage that could serve as “crime promoters” (Ekblom, 2010) to the intergenerational continuity of crime in Malta. It also outlines the geographical aspects of family life and neighbourhoods with potentially laden high socio-economic problems (Farrington et al., 2009; Sampson, 2006; Wilson, 1987) whose residents may share similar backgrounds (Falk & Fischbacher, 2002). This is also consolidated by an outline of socio-economic factors such as unemployment and poverty (Linn, 2008) within the Maltese society that may impact on risks linked to the intergenerational continuity of convictions across generations of Maltese families. The concept of the family used for this study revolves around the sociological framework of Tabone (1994), whereby the family is considered as the main social pillar in a small and closed-knit community such as Malta.

3.2 Demographic characteristics

The population of the Maltese Islands amounted to 417,617 (Figure 3.1) in the demographic review exercise carried out in 2010; of which 96% were Maltese and the other 4% represented foreigners as residents in Malta (NSO, 2011). The female component is over half of the population. Around 20% belong to the ≤ 18 year-old age-group whilst the 65+ represent 15% of the total population. The islands of Gozo and Comino have the smallest share of the population whilst the Northern Harbour district⁴⁸ has the largest share of the population.

⁴⁸ A total of 123,758 residents representing 29.6% of the total population.

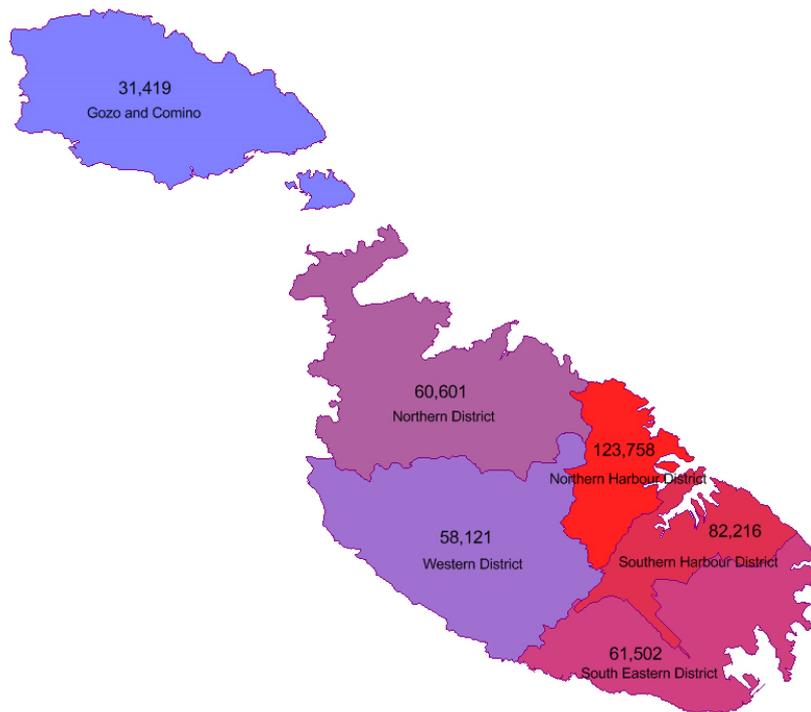


Figure 3.1: The Population of the Maltese Islands (NUTS4)

Between 1947 and 1972, 129,580 Maltese citizens (Baldacchino, 1988) left the islands in search of a better future in Australia, Canada, America and the UK. As a result of high levels of emigration in the 1960s, a decrease in the prison population was registered in the 1970s and 1980s. The majority of emigrants belonged to the younger cohorts (Planning Authority, 2001a), a factor that may explain the decrease in the prison population as most crime is committed by the younger cohorts (Sampson & Laub, 2005). In this respect, this could have had an impact on the continuity of offending instigated by a decrease in the younger age cohorts. It is possible some persons left the islands as they were socially and morally constrained, as their behaviour mirrored deviance from moral standards and the family's principles; examples include those who gave birth out of wedlock who emigrated. As a consequence of the dishonour they created in their family (Abela, 1991). In other words, belonging to a family entailed the need to protect its honour as negative feelings such as shame (*għarukaza*) brought torment. The next decades experienced considerable policy effort

towards developing a mixed economy⁴⁹, resulting in a balanced migration with a large number of emigrants returning.

3.3 The Family

The family is one of the social pillars in every society. Its existence is moulded by the demographic, cultural, socio-economic and geographic boundaries which could be exclusive to a particular social context. Its function in society is often accompanied by strain and struggles rooted in other problems such as financial drawbacks, an undesirable home environment and also crime (Ou & Reynolds, 2010). On the other hand, research has identified the family as a “promoter” as well as crime preventer. Nonetheless, the concentrations of convictions in families and a number of family risk factors as “crime promoters” pose a risk for the intergenerational transmission of crime. This section overviews various socio-cultural aspects, economic factors, religious and social change which have been claimed to have an effect on family life in Malta. These are explored in the potential impact on crime continuity in the Maltese islands.

As a social institution, the family is affected by social changes that influence that transmission of values across generations. Malta as an open society⁵⁰ (Tabone, 1994) has been facing significant socio-economic changes in the past two decades, which leave imprints on the family. The religion crisis brought about by the process of secularisation has affected family life; families have been swept along by consumerism and media influences thus the demand for a better lifestyle prevails but may be stressful for some families. The traditional family is tied to values and lifestyles that have resisted social change often found in what Tabone (1994) defines as closed community villages. The symmetrical family is one in which economic and household chores are equally shared by husband and wife. A single parent family may follow after separation/divorce or annulment or may have been as such in the first place. Over the past decades the family changed through various forms from the traditional to the symmetrical to the single parent family (Tabone, 1994).

However, the Maltese see the family “as the most important institution in their lives” (Boissevain, 1969, 1980, cited in Abela, 1991, p.31). The family is built on unity which, from

⁴⁹ In a mixed economy some activities are controlled by the state whilst others are under the scrutiny of the private sector.

⁵⁰ An open society is one based on social coherence and quality as well social assurance, equality, dignity and respect.

a cultural standpoint, is characteristic of the Maltese family. However, the social changes underlying the shift to a contemporary society have also affected the manner in which unity is expressed. Tabone (1994) adopts the Weberian model to describe the traditional Maltese family although Tabone highlights the fact that no theoretical model can provide an ideal explanation. The traditional family tends to be an “extended type” and even though parents and married children live in separate residences there are considerable interactions and strong ties that unite them. This is assisted by the spatial proximity between them due to the size of the islands that facilitates frequent visits with each other (Tabone, 1987). This phenomenon is important for the study of intergenerational continuity in Malta and the potential role of the family as a social network for crime, facilitated by restricted and extended family relationships. Respect and unity blend well together as such values are fundamental to norms and sanctions. Also, they safeguard the family even within the extended type as family members are ready to intervene and support each other in situations of joy and anguish (Tabone, 1994). The code of honour related to the feeling of shame⁵¹ is very typical of the Mediterranean cultures (Bossevain, 1974; O’ Really Mizzi, 1994) besides other gender related issues⁵². This concept of honour could be closely linked to gossip as a means of social control (O’ Really Mizzi, 1994) in a small country where people tend to know each other (Bossevain, 1974). Gossip is facilitated by the size of the islands, population density⁵³ and the physical layout of Maltese towns, where certain areas have become synonymous with offenders’ residence location, mainly Valletta and Bormla (Formosa, 2007). Also, social stigma is concentrated in specific zones such as Valletta and Bormla. Village cores are composed of depopulated and dilapidated inner zones whilst the old harbour towns such as Valletta are built on a grid pattern. These factors together facilitate dissemination of gossip (O’ Really Mizzi, 1994) that could in turn facilitate labelling of families.

The Maltese proverb “*id-demm qatt ma jsir semm*”⁵⁴ metaphorically depicts the strongly knit society composed of families in which its members are united by strong restricted⁵⁵ and extended family⁵⁶ ties. Also, other phrases such as “*tal-familja jew ta’ ġewwa*” (belongs to the family) and “*il-barranin*” (outsiders) outline that family members tend to distinguish between

⁵¹ Family matters are to be kept within the family and any disputes are to be well shielded from neighbours and non-relatives so as to avoid the shame and related social stigma.

⁵² Men were traditionally considered the sole breadwinners of the household.

⁵³ The Maltese islands have the highest population density in Europe.

⁵⁴ *Blood is thicker than water.*

⁵⁵ Relationships with immediate relatives such as parents, siblings and spouses.

⁵⁶ Relationships with extended relatives such as in-laws.

relatives and non-relatives (Abela, 1991). On the other hand the proverb “*skond għamilek laqmek*⁵⁷” highlights the connotations of the widespread use of nicknames in the islands. The use of family nicknames or individual nicknames in Malta provides a sense of identity for the family or the individual but could also serve as a social label. The family nickname is so strong that even immigrants who left Malta are identified by the nickname which survives across generations. Drofenik (2005) explains how when visiting Malta 45 years after immigrating to Australia, people could identify “her family’s social position from the family nickname of her father and mother” as well trace her family network.

Abela (1991) also claims that marriage is “society centred” and parents enquire about prospective in-laws (Tabone, 1994), which process could be linked to “assortative partnering”. In 2005, only 5.7% marriage separations were registered (National Statistics Office, 2007a), and one can confidently argue that marriage as a union is robust in Malta as compared to neighbouring EU countries. This could be attributed to the closely knit family rooted in the size of the islands and the influence of Catholic values that have slowed down the process of change as compared to other EU nations (O’ Reilly Mizzi, 1981, 1994). In other words, human behaviour does not necessarily mirror past actions linked to traditions but one’s conduct could represent the need to reflect on courses of action and decisions. However, this may not necessarily succumb to “anomie” (Durkheim, 1888), a situation in which one feels alienated from the social context. This is corroborated by Haldane’s (1997) explanation highlighting how people are no longer adhering to religious statements issued by the authorities with unqualified conviction but are instead making their own rational decisions. Also, people no longer fear being condemned in this life and being adjudicated in the life after death (Bezzina, 2002). This could explain why the number of births outside marriage increased by 8% from the 2008 to the 2009 (National Statistics Office, 2011). In Cospicua, 35% of baptisms are registered under the category “unknown father” (Galea, 2009) however this option may turn out to be convenient in terms of the welfare benefits from which single parents benefit.

The Maltese, similar to parents elsewhere, want their children to be better off than they are and not to be worse than the children of others. This explains why parents tend to measure their life successes in terms of their children’s successes. Nonetheless, Maltese parents have become less strict over the years (Abela, 1991) and this could be linked to the various socio-economic changes and the process of secularisation over the decades. However, parents have more “hold

⁵⁷ Your nickname reflects your behaviour.

over their children life and behaviour” according to Abela (1991, p.47) as compared to parents in other European countries. In other words, the family exercises significant social control over its members (Tabone, 1994). Also, such means of social control could manifest in two distinct ways; where children lead a conventional lifestyle in order to live up to the family standards and reputation or else follow in the footsteps of parents whether law-abiding or criminal. A case in point relates to the arraignment in court of a mother, her two daughters and son who were accused and admitted to committing theft from an entertainment park as co-offenders (Times of Malta, 2013). This is worth further investigation in the Maltese context even more so in the light of claims that co-offending between parents and offspring is rare (Farrington et al., 1996; Reiss & Farrington, 1991; Rowe & Farrington, 1997) and that co-offending is more likely to involve siblings (Farrington, 2002, 2011; Farrington et al., 2001).

The family size has shrunk towards the 1980s with the average family having 2-3 children (Tabone, 1987) and this is expected to further decrease in the future (Eurostat, 2014). According to Tabone (1994) irrespective of family size, children are still “the fulcrum of the family” and this parental dedication to children’s success is at times manifested in surplus as the Maltese proverb states “*ħadd ma jrid lil uliedu għar minnu*⁵⁸”. Despite the changes in size and lifestyle, the family of origin⁵⁹ gives one a sense of identity. Those who come from a well esteemed family are proud of their origins on the contrary of those who come from “ill-credited” families. However, some families with a history of crime and deviance tend to live up to their status so as to protect their members whether adopting legal or illegal measures. This could render offenders more detectable as “ill-credited” families are usually well known within their community and by the police. Such a scenario could be closely linked to labelling of crime families (Van de Rakt et al., 2009). Unity and loyalty to the family cater for the exercise of social control over the family members. One feels the need to protect the family’s honour and this explains why probing about a future spouse is almost a must (Tabone, 1994). There is no doubt that the Maltese family is a robust social institution, however, this may create a situation that Banfield (1958) calls familism⁶⁰. Social mobility provides one with the opportunity to lead a better lifestyle, as Sills (1972) highlights areas laden with socio-economic problems and poor “educational culture” (Tabone, 1994) render social mobility a very challenging exercise. Social mobility could act as a crime preventer. However, there are

⁵⁸ No one wants his/her children in a worse situation than s/he is.

⁵⁹ The family into which one is born.

⁶⁰ Familism; the nuclear family becomes one’s priority in life to the extent that it precedes personal success and the common good of the social context.

factors in the Maltese context such as lack of academic skills and “education culture” (Tabone, 1994), unemployment, residing in socially disorganised neighbourhoods (Formosa, 2007) which are often stigmatised and challenges imposed by close ties with roots. Consequently these social constructs could hinder social mobility and act as potential “crime promoters” (Ekblom, 2010).

The Income and Living Conditions Survey identified 14% of the Maltese population as living in poverty (National Statistics Office, 2007b) most of which are single parent families. These families tend to feel stigmatised (Abela & Tabone, 2008). A very recent study carried out by Caritas Malta is recommending a 14% increase in the minimum wage⁶¹ as these families are at poverty risk (Caritas Malta, 2012). Those facing financial difficulties are not the only ones living on the margin as there are other socio-cultural factors exerting stress on the Maltese structures.

Malta has the lowest employment rate of women in Europe at 38.6% (Borg, 2009) where the private sector does not offer family friendly measures as the public sector does (Borg Xuereb, 2008). This could make it easier for mothers to act as capable guardians of their teenage children against crime, thus acting as potential “crime preventers” (Ekblom, 2010). However, the situation might change in two aspects as the law was changed in 2007 which states that female employees have to work until the age of 65 (pensionable age) and thus they cannot offer such a support to their married children facing parenthood. Thus, various socio-economic changes have influenced families’ lifestyles and have instigated the shift from the traditional model into the symmetric one so as to adapt to the needs and demands of the 21st century.

Consequently, family life has changed over decades, relatives visit each other occasionally to the extent that whilst weddings and funerals serve as social gatherings to meet family members, where previously daily occurrences where the norm. The socio-economic changes rendered life quite fast and challenging, and thus one has less time to dedicate to relatives and the younger generations prefer to socialise with friends. However, such social gatherings help to reaffirm one’s identity and the need to support each other in times of happiness and anguish (Tabone, 1994). They also reflect the degree of interdependence between individuals and their family of origin. Also, the size of the islands and the proximity of towns and villages facilitate strong familial ties which are maintained even after one moves out of his/her family of origin.

⁶¹ The minimum wage is of EUR 679.87 monthly.

3.4 Poverty

The past two decades have witnessed an increased sense of well-being amongst the Maltese thanks to the industrialisation and modernisation processes and the recent EU membership. The disposable income of the Maltese increased considerably between 1994 and 2002⁶²; a 50% increase (Ministry for the Family and Social Solidarity, 2004). A growing number of research initiatives attest to the interest in poverty as a socio-economic drawback. The focus here is on unemployment as a socio-economic strain as well as a potential “promoter” in crime continuity. This could be facilitated by a process in which unemployment is a risk factor for poverty and subsequent social isolation (Linn, 2008), where the resultant effects instigate crime (Arvanities & Defina, 2006). In the absence of an Index of Deprivation in Malta, unemployment is considered as the best surrogate for poverty. Also, unemployment is claimed to be a strong predictor of clustering of offending in families together with other family risk factors linked to crime continuity (Thornberry et al., 2003). However, a criminal record can also lead to unemployment through stigmatisation and labelling, whereas “ill-credited families” with a conviction history could be at a greater disadvantage than others.

The risk-of-poverty rate indicates that over 57,000 persons in Malta (14.9%) earn less than €4,742.60⁶³ that is 60% of the median income of €7,905.89 (Table 3.1). This is reflected in the 2005 Census analysis, though it may need further analysis due to misreporting of income in that survey. This is reflected in a cross-analysis of recorded income as against material goods ownership that does not reflect income figures.

Poverty as an experience of social exclusion is not only a phenomenon of poor countries but also affects those whose standard of living is higher in absolute terms but who still occupy a position below the poverty line (Deguara, 2004). The Laeken indicators used as indicators of poverty suggest that there are particular groups within the Maltese population that represent high-risk groups, mainly single parents followed by those who are unemployed, those living in rented households, children and the retired elderly (Ministry for the Family and Social Solidarity, 2004). This corroborates findings from the Survey of Income and Living conditions carried out by the National Statistics Office⁶⁴ (National Statistics Office, 2007b) which

⁶² Deprivation index of 0.23.

⁶³ The Maltese Lira (Lm) has been replaced by the Euro on the 1st January 2008. One Maltese lira (1 Lm) is equivalent to €2.33.

⁶⁴ NSO refers to the abbreviation of National Statistics Office.

identified children⁶⁵ and the elderly⁶⁶ as the high-risk groups in terms of age category whilst the unemployed are also at a high-risk.

Table 3.1: Poverty Indicators

Threshold	Value (Lm)	Number of persons below threshold	% household population
Median	3,394	192,750	50.0
40% of the median	1,357	11,770	3.1
50% of the median	1,697	29,780	7.7
60% of the median	2,036	57,380	14.9
70% of the median	2,376	88,420	22.9
20th percentile	2,261	77,126	20.0
80th percentile	5,092	308,504	80.0
S20	135,565,300	N.A.	N.A.
S80	607,001,200	N.A.	N.A.
S80/S20 ratio	4.5	N.A.	N.A.

N.A. not applicable

Source: National Statistics Office (NSO), (2003a, p.49)

Of importance to this study is the analysis of employment/unemployment circumstances of inmates particularly since Formosa (2007, p.273) had identified a spatial correlation between offender-residence location and poverty hotspots. Poverty was measured through the analysis of a specific welfare benefit (unemployment benefit) allocated to those who are unemployed and who have no other source of income and thus more likely to fall below the poverty line. These phenomena could be directly or indirectly linked to social exclusion also as the neighbourhood hosts a concentration of residents sharing similar backgrounds (Falk & Fischbacher, 2002) and socio-economic constraints which neighbourhoods could also serve as a means of social segregation. In view of this, such neighbourhoods could fail to serve as social buffers to crime (Anderson, 1990; Wilson, 1991) and consequently could have a role in the development of the activity field (Wikström, 2008) and crime continuity.

Whilst studies have suggested that poverty and economic disadvantages predispose crime (Baumer & Gustafson, 2007), it is also important to note that, not all those who are poor commit crime. Merton (1938) claimed that poverty on its own does not account for high crime rates.

⁶⁵ First high risk group (NSO, 2007b).

⁶⁶ Second high risk-group (NSO, 2007b).

The latter could be explained in terms of a weak commitment to use legitimate means to obtain economic success augmented by poverty (Baumer & Gustafson, 2007). Nonetheless, Sampson and Wikström (2008) claim a correlation between poor collective efficacy and crime levels. A setting characterised by poor collective efficacy does not necessarily predispose crime but it affects particularly those with high crime propensity (Wikström et al., 2010). The environmental setting as an activity field interacts with individuals' moral rules influencing both perceptions and choices affecting the outcome and consequences following an action/inaction (Wikström, 2006). Studies such as that Formosa (2007) in Malta show that offenders migrate to or are constrained to areas characterised by poverty, poor social cohesion and poor collective efficacy, which are also likely to host a concentration of offenders. Offenders may have restricted options either because local banks refuse to grant a home loan or landlords would be reluctant to let property to them. It is noted that offender and population density feature predominantly in the towns found in the harbour area. In summary, offenders in Malta tend to live in "poor areas" (Formosa, 2007) where poverty and the concentration of offenders could render it difficult for one to avoid the negative impacts of poverty and crime. Also, such findings highlight the need to examine the extent to which families involved in crime come from the poorest communities.

Situation of accumulation of factors could lead women to live in poverty (Ruspini, 2000). Women tend to have less income security (Alcock, 2006; Ruspini, 2000), their participation in the labour force declines on motherhood (Commission of the European Communities, 2007) whilst lone parenthood could lead to reliance on welfare benefits (Cutajar, 2006). Also, in Malta the employment rate of females was 35.5 % (National Statistics Office, 2007c) complementing findings from the 2005 Census. In addition, lone parenthood is on the increase (National Statistics Office, 2007d) with the majority of who are mothers (National Statistics Office, 2003b; Employment and Training Corporation, 2005a). The first publication of indicators of poverty and social exclusion points out that 15.1% of the females and 14.7% of the males are at risk of facing poverty⁶⁷ (National Statistics Office, 2003a). Also, when comparing female early school leavers in the EU, Malta has the highest rate (51.8%⁶⁸) of females who do not enrol in post-secondary education (National Statistics Office, 2003a). This renders females more vulnerable to poverty as their chances of employment are somewhat

⁶⁷ NSO joined Eurostat Structural Indicators Programme so as to ensure uniformity of data gathering in EU countries.

⁶⁸ This figure represents the percentage female population aged between 18 and 24 who are not attending to any educational institution or training.

restricted. In summary, these factors could allow for negative impacts on families as their financial resources are limited.

In addition, 9% of the Maltese children live in jobless families (Eurochild, 2007) which tend to concentrate in areas such as the Inner Harbour and Southern parts of the island classified as socially deprived (Abela & Tabone, 2008). Most find it difficult to cope, whilst as typical of Mediterranean cultures, some find comfort and support in their extended families (Cutajar, 2006). Also, those who manage to join the labour force tend to have low-paid jobs (National Commission Persons with Disability, 2003) and the risk of social exclusion and subsequently poverty is high. Most studies reviewed here failed to explore directly unemployment and related risks such as poverty amongst the offending population.

In a recent study (Formosa, Scicluna, Formosa Pace & Azzopardi, 2013), in which local business persons were interviewed about the possibility to be potential employers for inmates, 93% said that they would not employ an inmate. Reasons given include, “inmates have a propensity to cheat” thus should not be trusted, risks taken in employing an ex-inmate are high and the possibility of lack of accountability is also likely. In other words, ex-inmates could be considered as the third group at risk facing socio-economic drawbacks that limit their opportunity for change and social mobility. Nonetheless even though the number of people in prison is relatively small, ex-inmates and their families are at risk of poverty and subsequent social exclusion.

From an economic perspective, the Maltese unemployment rates were 6.1% and 6.9% in 2008 and 2009 respectively (Index Mundi, 2011). One tends to expect that those who are employed are less likely to face poverty (Alcock, 2006) but those families who are living on a minimum wage⁶⁹ also tend to fall below the poverty line in Malta. Poverty does not only pose economic problems, it also presents social problems (Alcock, 2006). In a community-based project, Abela and Tabone (2008) noted that this is a situation of accumulation of undesirable situations such as poverty and social exclusion which together generate more negative scenarios (Abela & Tabone, 2008). These scenarios could act as a risk or mediating factors for crime in Malta, even more so when one considers the unwillingness of employers to regard ex-inmates as potential employees (Formosa et al., 2013).

⁶⁹ Weekly minimum wage in Malta is that of €142.67 for those employees under 17 years ; €145.51 for 17 years old employees and €152.29 for the 18+ category as per Legal Notice 378 of 2009.

3.5 Reported crimes in the Maltese Islands

This section aims to set the context for understanding crime in general, in Malta. This is presented through a discussion focusing on the offences reported to the police. An analysis of the local crime patterns as compared to those in other European countries follows.

The number of reported offences per thousand persons has increased considerably (Table 3.2)⁷⁰, where the number of reported crimes has increased sharply from 14,881 represented by a rate of 4.7 offences per 1000 persons in the 1960s (1960-1969), to 36,372 in the 1970s (rate of 11.9) to 53,465 in the 1980s (rate of 15.7). Also, the figures towards the 1990s and then towards the 2000s, demonstrate a rapid increase, particularly in the latter period. The number of reported crimes in the 1990s stood at 95,180 (rate of 25.2) whilst during the 2000s the Malta Police registered a total of 162,168 offences (rate of 40.0) whilst the incarceration rate increased from 4.1 per 1000 persons in the 1960s to 8.4 in the 2000s (Formosa, 2007). It is to be noted that the considerable increase in the rates is attributed to the fact that the population did not increase at the same pace as crimes have increased in the same decades (Table 3.2). This could be explained by more affluence, a rapid increase of tourism and entertainment outlets since the 1990s and more opportunities for crime.

Table 3.2: Offences per 1000 persons – Decades 1960s-2000s

	Offences Reported	Offences per 1000 Persons	Maltese Population
1960s	14,881	4.7	316,440 (1965)
1970s	36,372	11.9	306,551 (1975)
1980s	53,465	15.7	340,907 (1985)
1990s	95,180	25.2	378,404 (1995)
2000s	162,168	40.0	405,006 (2005)

(Updated from Formosa, 2007)

Figure 3.2 below provides an overview of offence categories reported to the police, and these are categorised by seventeen sub-categories. Most studies have focused on comparing any life time offending of parents and their children to study crime continuity and only a limited number have examined intensity and seriousness of offending. By analysing the number of convictions

⁷⁰ A mid-point is taken: example for the 1960s the population as at 1965 is accounted for.

served in Malta between 1950 and 2010, it is possible to account for all the crime categories awarded by incarceration at CCF, and thus from this explore if there are types of offences which are more likely to run in families.

It should also be highlighted that these figures represent incidences rate per 1000 persons residing in the Maltese Islands. This method is used so that comparison to incidence rates with other countries is feasible. Wilful homicides and involuntary homicides score lowest; the figures attest a scenario in which homicides⁷¹ are infrequent crimes. Sexual offences could be regarded as consistent with the 2000s scoring the highest totals equally. Domestic violence prior to 2007 was incorporated within the bodily harm category (PIRS), but it was its categorisation as a separate offence in 2007, that explains the increased incidence rate between 2007 and 2010 (Azzopardi, Scicluna, Formosa Pace & Formosa, 2013b). Nonetheless, offences against the person were consistent for the 1960s and 1970s, increased towards the 1980s, decreased in the 1990s and experienced sharp increase in the 2000s (2000-2009). This rise towards the 2000s represented a six fold increase. This could be explained by the growth in the number of entertainment venues towards the 1990s and creation of entertainment areas hosting a concentration of venues by the 2000s (Planning Authority, 2001 b, c) frequented by an increased patronage during the weekends could have resulted in damage and bodily harm⁷². Analysis of cause of damage to property reveals a steady increase from the 1960s to 1980s followed a slight decrease towards the 1990s and a sharp increase towards the 2000s recording the highest prevalence rates.

Theft from premises inside towns or villages experienced a sharp increase during the 1960s, 1970s and 1980s. This was followed by a constant increase towards the 1990s and a sharp decrease towards the 2000s. Between 1998 and 2010 theft (inclusive of vehicles etc.) stands out to be the most frequent crime across all years, followed by damage and bodily harm, consistent with the trend from previous decades. New phenomena related to theft include pick pocketing and snatch and grab; data here is only available for the last two decades. The decrease in reports of pick pocketing could be explained in terms of the unwillingness of people

⁷¹ Average number of homicides annually is 4; ranging from 0 in 2003 and 2006 to 9 homicides in 1999 which year registered the highest number of homicides. The rate of homicides is that of 2.8 per 10,000 reported crimes. Data is calculated based on information from PIRS covering 1998 to 2012.

⁷² San Giljan as the main recreational hub, witnesses a rate of bodily harm of 11% during weekdays with the rate reaching 24% during weekends when compared to other localities characterised by a concentration of retail outlets. The next closest are San Pawl il-Bahar and Sliema with a 7% incidence respectively during the weekends (Formosa, 2007).

to report such a crime, also likely to be triggered by the fact that credit cards are insured by banks.

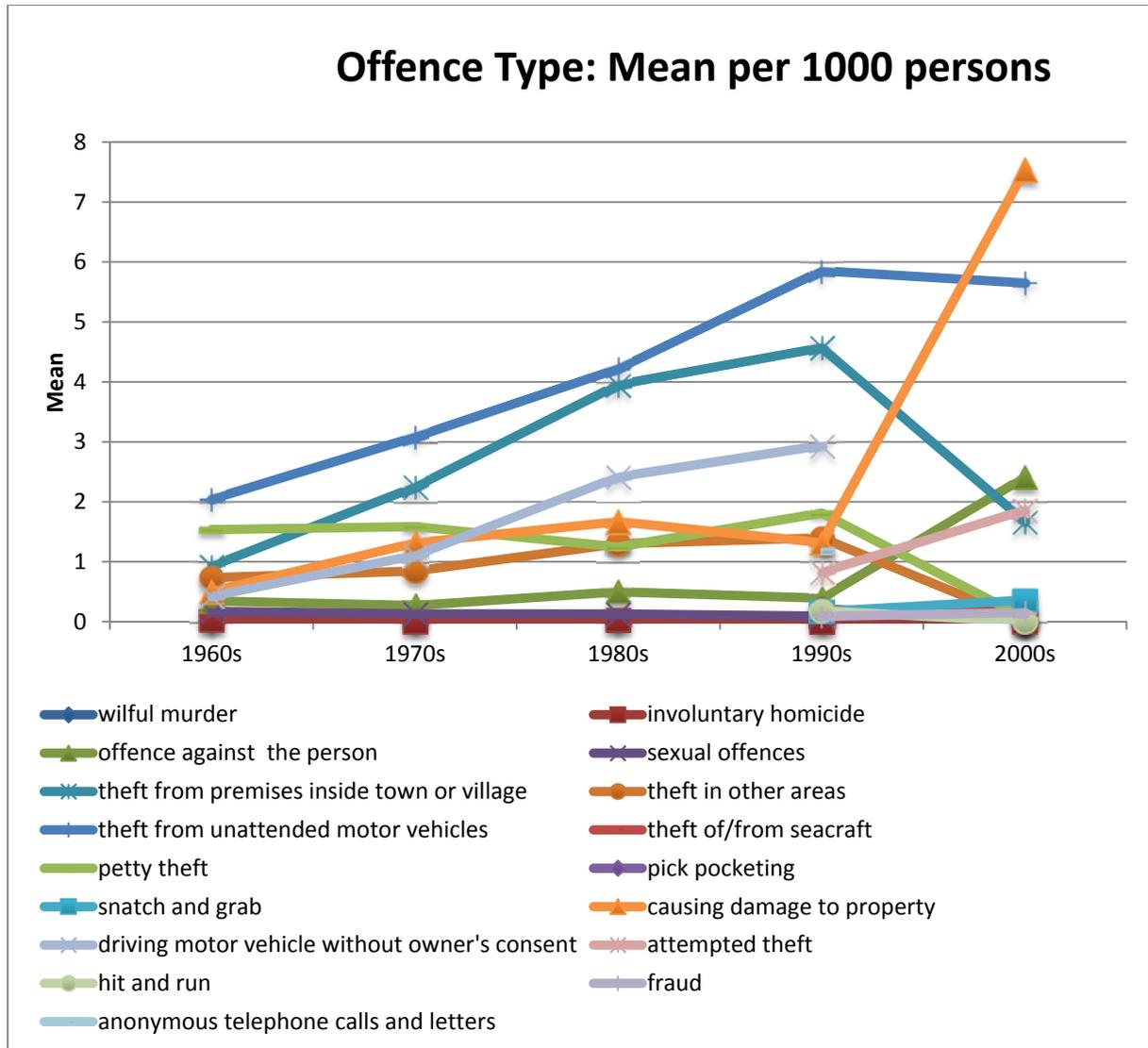


Figure 3.2: Crime trends across the decades from 1960s to 2000s

(Updated from Formosa, 2007)

However, the incidence of snatch and grab has doubled, reporting such a crime could be viewed as “worth the hassle” since the potential identification of valuables, particularly items of gold is more probable when one attempts to sell a stolen item in a registered gold market/outlet. Theft from vehicles increased considerably across the decades mirroring the increase in the number of vehicles on the streets particularly since the 1990s. This type of crime stands to be

the highest or second highest reported type of crime over the five decades (Figure 3.2). The number of attempted thefts and fraud has doubled in the same two decades. This type of white collar crime is closely linked to the fact that the prison population to date hosts businessman and professionals such as notaries and judges. Additionally, the number of attempted offences has been experiencing a constant decrease over the last four years (2007-2010) which could be attributed to the fact in public lack of interest/trust in reporting a crime which is not completed.

Crimes reported to the police have experienced an increase over the decades but experienced a steady decline in the 2000s followed by an increase post 2009 (CrimeMalta, 2012). The total number of crimes was 13,365 in 2010 with an increase to 14,290 in 2011 (CrimeMalta, 2012). Eurostat (2010), adopting national sources of information of EU member states, candidates and potential EU candidates and EFTA/EEA countries, has compiled data that allows for comparison of crime trends across nations. The EU is witnessing fewer reported crimes since 2002 particularly in the UK, France and the Netherlands. However, Portugal, Slovenia, Italy, Spain and Cyprus experienced an increase in reported crimes rates between 2002 and 2008. On the other hand, the prison population per capita has remained high in the eastern part compared to the west of the EU. When comparing crime indices of the total crimes reported to the police of all EU member states, Malta had the lowest crime index in 2008.

The number of homicides committed between 1998 and 2010 was 56, such trends follow similar past trends and whenever a murder occurs it shocks the island whilst generating a lot of public concern. Malta's low rate of "homicide" is comparable to that of Luxembourg (Eurostat, 2010), which similarity could be attributed to the fact that Malta and Luxembourg are relatively small countries when compared to the other member states. Taking a closer look at "violent crimes"⁷³, Malta's crime index is significantly lower than that of Luxembourg and compares to the situation of the east Mediterranean island of Cyprus. However, such a similarity is not extended to indices for theft of motor vehicles⁷⁴ (Eurostat, 2010). Malta Crime index for "robbery" which was considered as a "subset of violent crime" was the lowest whilst that of domestic burglary was second lowest in 2008. In contrast, "drug trafficking" indices highlight one of the worst scenarios amongst the EU member states; Malta had an index of 159 in 2008. Drug related offences have been a phenomenon worth to study since the 1990s with figures increasing constantly from 2003 and reaching a constant over the last three years

⁷³ Violent crimes included physical assault, robbery and sexual offences.

⁷⁴ Malta index as at 2008: 59; Cyprus index as at 2008: 111.

(PIRS). Also, the prison population has shown a large increase in incarceration rates when compared to other EU countries (Lappi-Seppälä, 2011).

An overview of cases reported to the police (PIRS database) shows that on average 1% of cases are closed for administrative reasons such as the inputting of erroneous reports, 10% are solved by the police and 89% are unsolved (PIRS, 2010-2013 available figures on 53,677 reported offences). Of those solved, such cases are taken to the courts, where data is limited due to non-reporting of results by the same courts. Of those that were reported to the National Statistics Office (or its predecessor Central Office of Statistics) prior to 2000, figures for those taken to court show that of the persons arraigned in front of the Criminal Court (where data is made available, which data was no longer reported following the year 2000 at any Court level), 15% were acquitted whilst 85% were convicted (National Statistics Office, 2000). Of those convicted, on average 74% are imprisoned, 20% receive a suspended sentence, 1% receives probation, 3% receive a conditional discharge, whilst 2% receive a fine only. Of the whole group, except for those exclusively receiving a fine, 28% receive a fine in conjunction with the other award.

If one had to review the figures from commission to those who eventually end up in prison, a very small number are resultant as part of the population available for study. If one had to walk through the available data, of the offences committed, 20-40% are reported, of these 10% are solved, of which 85% are convicted, of which 74% are imprisoned. Hypothetically, in numeric terms, of 100 offences committed, 40 are reported in PIRS, 4 are solved, 3 are convicted by the courts and 2 are imprisoned. This implies that of all the offences committed very few result in the perpetrators serving a prison term at CCF. In other words, the prison population is only a subset of the offending population. However, whilst this may be seen as a limitation, it is not thought that this unduly biases the results as there are no obvious reasons why this subset of the offending population is not representative of familial offending patterns.

3.6 Exploring intergenerational continuity in offending in Malta

Most sociological research to date has focused primarily on the functionalist role of the family. There is no doubt that the family is a robust social institution providing its members with a sense of identity and that it serves as a support network (Tabone, 1994). However, explaining crimes related to the family is a research area that warrants further investigation. Also, the

feeling of *omerta*⁷⁵ quite typical of Mediterranean cultures, is a clear indicator of the close-knit community that features in the Maltese Islands (Azzopardi et al., 2013a). In certain villages, the expression of *omerta* is even stronger and this explains the lack of readiness to report a crime and the number of unresolved homicides largely in Gozo. Nonetheless, the role the family as a support network could have in the mitigation and accentuation of crime has not been explored to date.

The findings from the reviewed transnational studies might not be applicable to the local context since the family as a social institution is moulded by the social context. The cultural and geographical boundaries could also have a role to play. Within a town or village, esteemed as well as “ill-credited” families are frequently known and quite unlikely to go unnoticed. This could instigate labelling but could also catalyse a stronger sense of loyalty amongst family members consequently limiting the possibility of naming and shaming a family member. The need to support each other “*fit-tajjeb u fil-hażin*⁷⁶” could pave way to conventional as well as illicit experiences. The latter could include the provision of false alibi and concealment of information however such could feature in other countries.

The closed-knit community built on a robust degree of interdependence amongst family members might bring together people in Malta. This contrasts with the situation in other countries, where the existence of social and geographic boundaries due to large distances, could render family members apart. In some societies, it might be easier to escape and detach from familial ties and roots but such cannot be said about Malta. The strong sense of identity (Tabone, 1994), the size of the islands and other socio-cultural constructs could render it difficult for one to escape from a criminogenic environment. This is even more so due to the fact that most families reside in one locality for generations and it is virtually difficult to end peer and family ties when the Malta island are only 28km in length and 14km in width and half the dimensions for Gozo. This renders severance of contacts virtually impossible as any member can trace one within a few hours by walking or minutes through transport means. In addition, findings from the Abela and Tabone’s (2008) study claiming that an accumulation of social disadvantages could sustain negative scenarios (Abela & Tabone, 2008), could be relevant to the cycle of crime. This could succumb to a situation of “causes of causes”

⁷⁵ *Omerta* refers to the concealment of information about a crime.

⁷⁶ In good and bad times.

(Wikström, 2009) and the presence of “multiple risks” (Besemer, 2012) that sustain crime. However these “crime promoters” (Ekblom, 2010) are not necessarily specific to Malta.

This said, in the absence of intergenerational research in Malta, there is a clear need to explore the extent to which convictions involve members of the same family. The family has been affected by social change, strains, modernity and the process of secularisation. However, irrespective of these changes and challenges the Maltese still consider the family as an important institution in their life (Tabone, 1994). Also, children are the fulcrum of family life characterised by unity, respect and mutual support. The main thrust of this study is to explore the potential role of the family in crime continuity and analyse the risks that might influence the cycle of crime across generations. Also, risk factors that have been traditionally linked to crime; such as exposure to crime, unemployment and residing in neighbourhoods laden with socio-economic drawbacks could be sustained through social, community and geographic factors imposed through the size of the islands.

3.7 Conclusion

Across generations, Maltese society has changed, yet despite the challenges imposed by the need to comply with the demands of contemporary society the closed knit family unit is still deemed to be the main social institution so much at heart to the sovereign state and its nationals. The size of the islands has a significant effect on the lifestyle, the concept of family life and the relationships between family members inclusive of those who are not considered as the immediate family members sharing the same dwelling.

However, families do not always fulfil their role in society, a scenario which could be instigated by other strains such as unemployment and crime (Ou & Reynolds, 2010). In Malta, theft, damage and bodily harm are the most frequently reported crimes whilst homicides show lowest prevalence rates when compared to other reported offences. The 1990s witnessed the emergence of drug related offences. From all the crimes committed in Malta, relatively few are solved through the identification of the perpetrator. Thus it is important to study the cohort for which information is available for investigation that being the prison population at CCF. This issue is discussed further in relation to the research questions in the next chapter. However, this crime trend analysis to date does not explore the potential role of family characteristics as risk or mediating factors to crime continuity across generations.

The effects of family and kinship ties are witnessed in marriage and partner choice. Also, loyalty, unity and support towards family members foster social cohesion. In a small and closed-knit community such as Malta, the success of parents is measured by that of their children. This study uses Malta as a laboratory for studying whether lives are linked through crime and if so whether the family has a role to play in crime continuity. This is pursued by exploring a series of family, socio-economic and environmental risks that could serve as “promoters to crime continuity”. This said, it is entirely appropriate that intergenerational crime research is carried out in the Maltese islands since this topic has never been taken up due to a dearth of data, the family unit has not been studied in relation to crime and the intergenerational genre has not featured in countries where social cohesion is strong. Studies reviewed in Chapter 2, have primarily examined the potential continuity of crime in countries which are relatively larger than the Maltese islands which are also culturally very different. Investigating the extent to which potential transmission of crime in a society such as Malta, although challenging, does fill a gap in the research knowledge and is therefore well justified.

The next chapter outlines the research framework, defines the research questions and provides the reader with an overview of the aims and objectives of this Malta study.

Chapter 4: The Research Questions and Research Framework

4.1 Introduction

This chapter highlights the research gaps identified in the international literature and explores which aspects of the Maltese context require more investigation to examine the continuity of crime in Maltese families. The main objectives of the study are outlined here together with the investigative rationale employed to delve the understudied phenomenon of intergenerational presence of crime in the Maltese Islands. Research to date in the Maltese islands is quite extensive in the sociological genre including family studies, but limited in relation to criminological studies. Furthermore, the role the family could play in sustaining social disadvantages through linking lives across generations (Simons et al., 2004) has been disregarded to date.

In order to outline the empirical rationale for this study, an overview of the research framework is presented. This sets the context for identifying the research questions for this Malta study. This is followed by a discussion of the aims of the study, and an overview of the three objectives. The main focus of these objectives is to create a profile of the intergenerational cohort, explore the potential family, individual, social and spatial risk factors that could be linked to crime continuity across generations of Maltese families. The five research questions that stem out of the objectives are reviewed accordingly.

4.2 Introduction to the Research Questions

Intergenerational crime research is a genre of research focusing on studying crime patterns across generations of families across the decades primarily focusing on restricted relationships between fathers and sons, siblings and to some extent partners⁷⁷. This type of research points towards a scenario in which lives are linked (Thornberry et al., 2003) where the correlation between parents' and children's crime is strong (Johnston, 2006) particularly for fathers and sons. Also, most research to date has focused on comparing convictions of restricted relatives employing the "any life time offending" approach example comparing one conviction of a father to one conviction for his son. Consequently not all crimes committed by related

⁷⁷ A partner could be a spouse.

individuals are explored. Furthermore, such an approach does not consider whether particular types of crime tend to run in families more than others.

The robustness of claims that crime runs in families is often challenged (Baltes & Nesselroade, 1984; Brim & Kagan, 1980; Dannefer, 1984) and this could be linked to the call for more investigation of transmission proxies. The latter could include exploring how many offenders within a crime family lived in the same address; whether there is a variation in the offences perpetrated by different family members and studying co-offending where family members are partners in crime, all of which may lead to a clearer indication of familial transmission.

The extent to which lives are linked and whether families could serve as crime networks is under-researched. The fusion of families in crime through marriage between individuals partaking to crime may result in crime networks, yet another under-investigated risk or mediating factor. Also, research falls short in pointing towards what is being transmitted across generations of families. Is it readiness to offend which is being transmitted or predisposition towards offending that is rippled across generations? Moreover, the focus of specific transmission risks linked to crime continuity across generations of families is undoubtedly understudied (Besemer, 2012).

The potential effect of the neighbourhood on crime families is a further research gap and spatial analysis could illustrate the coalescence of different risk factors by providing an outline of an environmental framework. At this point, one asks whether continuity in offending happens because of the environment individual family members involved in crime share or because of interactions at the individual and community level or because of both, the neighbourhood/environment facilitating interactions between individuals.

More in depth investigations are required into the likelihood that members of the same family would be involved in crime based on age, timing of periods of incarceration, whether or not a close relative and location. Studying multiple risk factors, which could accumulate to a scenario characterised by “causes of causes”, needs further investigation in order to understand the intergenerational transmission of crime. Research in the field falls short of studying the underlying mechanisms (Bijlevald & Farrington, 2009; Putkonen et al., 2002; Thornberry et al., 2003) which examine how and why crime runs in families. Current research in this field

is inconclusive as to which risk and mediating factors account for the concentration of offending and clustering of convictions in families.

The phenomenon of continuity of offending with the family as a main unit of analysis has not been taken up in the Maltese islands to date. This emanates from the lack of data and crime research that is still in an embryonic stage. On the other hand, sociological research partakes of a large body of literature about the family as one of the main social pillars within the local context. The family has been explored in view of its functional role responsible for child rearing and exercising informal social control over its members. Furthermore, the focus of this Malta study is linked to the query of whether lives are linked by crime and thus seeks to explore the potential influence of the family on crime.

Family life in Malta is shaped by the size of the islands, geographic boundaries and the closed-knit kinship ties between family members. These, together with other social constructs featuring in family life such as “the code of honour”; the family as a support network for its members including restricted and extended relationships; unity and respect; and marriage being “society centred” (Tabone, 1994) are all factors that may influence the risk of crime continuity. These factors collectively account for durable interdependence between family members as well as a strong sense of familial identity in Malta. However, these may also account for the propagation of negative scenarios and risk factors potentially linked to crime across generations.

In addition, social constructs such as unemployment, the absence of an “education culture” (Tabone, 1994) and residing in neighbourhoods characterised by poor collective efficacy (Wikström et al., 2010), poverty and offender hotspots (Formosa, 2007) have been identified as constraints to social mobility in the islands. It also is noted that these factors have been linked to crime and criminal propensity in a number of studies. However, it is yet unknown whether these act as potential risk factors and transmission proxies that compound and reinforce continuity of offending characterised by the clustering of offending in Maltese families.

The following section outlines the aims of this Malta study and defines the three research objectives from which specific research questions follow.

4.3 Aims

This research aims to understand the occurrence, if any, of the intergenerational transmission of crime in the Maltese Islands. This research, for the first time, identifies the potential role the family has in crime based on convictions awarded by prison term; and studies how far and to what extent crime is concentrated into a small number of families. This study seeks to outline the social networks between relatives who are or have been imprisoned, examine the nature and effects of criminogenic exposure, and studies the potential role of assortative partnering in crime continuity. It also focuses on the individual and environmental cues that might influence transmission risk, taking into account physical and socio-economic factors where possible. These include employment, educational background, and spatial factors in relation to poverty and offender-residence hotspots.

The aims of this study are defined below:

1) *This research aims to develop an understanding of the intergenerational phenomenon in the Maltese Islands, through a study of the incidence of, relationship type and concentration of incarcerations in Maltese families.*

2) *The study will in turn analyse the evolvement of crimes across at least two to three generations and seek to understand whether the family has a role to play in crime.*

In order to achieve these aims, three research objectives were developed based on identified gaps from the literature review and the discussion of the Maltese context in the previous chapter. The following section provides an overview of the objectives that set the context of the empirical rationale of this Malta study. Within each objective some more specific questions are considered.

4.4 Research Objectives

4.4.1 Objective 1

To undertake an in-depth analysis of familial conviction patterns between 1950-2010

The rationale underlying this objective is based on the need to understand convictions awarded by a prison term in the Maltese Islands. This is achieved through an investigation aimed at a 60-year time period (1950-2010), and in the absence of any existing databases such as a criminal career database. The creation of offenders and families enabled the researcher to identify familial links amongst inmates. Also, the sixty year period provides a comprehensive database for studying the potential occurrence of and continuity of offending across generations, a phenomenon not yet studied in Malta. This objective aims to identify the potential relationships between offenders using a retrospective design. On the other hand, this design restricts the exploration of trajectories (examples: chronic offending and sporadic offending; persists and desists) throughout the life course. Nonetheless, the main emphasis of this study is to develop an understanding towards intergenerational continuity rather than employ a criminal career approach.

This study requires the use of a whole population of incarcerated Maltese nationals, a scenario which makes it possible to study convictions and changes across the decades of individual offenders related to one another by restricted and extended family relationships. The decision to investigate the entire population, as against the use of a smaller sample is a reflection of the fact that the number of inmates at CCF is relatively small which makes it possible to undertake a comprehensive analysis of convictions within families (Refer to Chapter 3). This objective seeks to understand the profile of the intergenerational cohort in Malta studying its demographic composition, focusing on crime prevalence, crimes committed by co-offending partners, and intensity of familial conviction patterns through the analysis of re-convictions and length of sentences served at CCF. Also, since this phenomenon is studied for the first time in Malta, this exercise yields a bank of data pivotal to the future intergenerational research of social phenomena not necessarily crime related.

4.4.2 Objective 2

To examine the type of familial relationships evident among Maltese offenders and the influence of these on crime patterns

This objective is based on the need to identify those inmates who have/had some form of restricted or extended relationship with another CCF inmate and eventually identify, with greater precision, the nature of the relationships between the different individual inmates. This provides the groundwork for the creation of *trees* representing crime families. This exercise depicts visually (through the categorisation of structures) the nature of the relationships between the different individual offenders and determines whether the association of convictions between family members represent vertical (such as convicted parents and offspring), horizontal (such as convicted siblings, spouses, cousins and in-laws) continuities or both. The rationale underlying this objective is to identify the type of relationships existent amongst inmates comprising the intergenerational cohort. The focus is to study the type of relationship by offence type; which includes examining the seriousness of offences, recidivism and the potential presence of co-offending in crime families. The concept of “familial offending heterogeneity” is studied through exploring how much variability in offending exists in convictions within crime families focusing on the variations in offences perpetrated by different members within the same *tree*. Also, the potential learning effects linked to exposure to a convicted relative are analysed further through examination of crimes committed by co-offending partners belonging to the same crime family and the time intervals between the convictions of family members.

4.4.3 Objective 3

To identify and explain factors which might influence transmission of crime risks within the intergenerational cohort

Research has identified a wide range of risk factors as “promoters” closely linked to crime prevalence. These could also be linked to crime continuity through families. Fewer studies have examined the mechanisms or specific risk factors that distinctively highlight how and why crime appears to “run” in families. It is noted that the retrospective design of this Malta study and dearth of data emanating from the lack of a criminal career database does not allow

for the study of individuals prospectively throughout their life course. The focus here is on risk and/or mediating factors linked to intergenerational offending. A limitation here is the temporal sequence of risk/mediating factors could not be explored. Also, this retrospective design does not allow the researcher to distinguish between risk and mediating factors, as this requires a more in-depth analysis over a number of decades.

Most intergenerational research lacks the direct examination of biological constructs in studying continuity of offending and also fails to explore to a great extent the role of peers in crime continuity. Peers might exert a stronger influence than parents in offending considering the amount of time youths spend with their peers and that the influence of peers is also identified as a risk factor. However, the aim of this study is to focus on families involved in crime and not the influence of peers. Also, the biological aspect is beyond the remit of this study. This said, the databases used for this study do not provide information on a number of other potential transmission risks such as parenting styles, low self-control and morality.

The main focus of this objective is on individual, socio-economic and environmental risk factors. Individual risk factors relate to issues such as schooling particularly, literacy background and school type. Socio-economic risk factors include employment and poverty linked to the economic strains following lack of financial resources. Finally, environmental risk factors refer to the residential location of inmates belonging to the intergenerational cohort. All of these are shown to be relevant in the literature review, and particularly so in the context of Malta.

4.5 Research Questions

The following research question emanates from the first objective: “to undertake an in-depth analysis of familial conviction patterns between 1950 and 2010”.

Research Question 1: *Is there any evidence that offending occurs intergenerationally in the Maltese islands? To what extent is the intergenerational cohort characterised by distinctive patterns of offending?*

The scope of this research question is to establish to what extent crimes in Malta are committed by individuals belonging to the same family. This exercise facilitates the identification of the existence of two distinct groups; the intergenerational cohort (consisting of individuals who at least had one relative at CCF) and the non-family component (who had no identified family relationships with other inmate/s) for each decade. These two cohorts together comprise the general prison population. This exercise sets the groundwork for further comparative analysis between the intergenerational cohort and the non-family component.

Following the identification of the presence of intergenerational continuity, the research will further focus on whether offending in the Maltese islands is concentrated into a relatively small number of families. This will be carried out to understand the extent and the magnitude of such a phenomenon. Most research reviewed in the literature originated primarily from the criminal career research genre. However, in the absence of such a database in the local context, the use of conviction tickets as official records and the identification of sub-sets from the general prison population based on the presence or absence of familial links made this retrospective design possible. The quantitative exercise employed here highlights the share of crime of the intergenerational cohort and the non-family component in terms of prevalence of offending, recidivism based on re-convictions, and co-offending. The non-family component serves as a comparison group in the absence of a control group from the general population. Also comparison with the general population as a comparison group was not possible within the scope of this study.

This research question also requires the investigation for the potential presence of distinctive patterns in the intergenerational continuity of convictions across generations of Maltese families. The focus here is to examine whether or not there are characteristics unique to the intergenerational cohort in comparison to the non-family component. A demographic

overview of the sex and age distribution aims at providing a descriptive comparison. Further analysis includes the examination of types of offending and sentence length for the three cohorts (intergenerational, non-family and general prison population). The analysis of crimes committed by inmates belonging to the respective cohorts, aims at identifying potential crime patterns pertaining to crime families. Also, an in-depth examination of sentence length seeks to yield information on whether individuals in crime families are awarded shorter or longer sentences. Additionally the investigation on the number of generations linked to continuity in offending examines whether “lives are linked through crime” over the decades.

In doing so, this analysis will identify, whether or not having a family member at CCF is in itself a risk factor, and whether or not the size of the crime family has a role in augmenting risks. This is carried out through exploring the convictions per capita served by individuals belonging to their respective cohorts, followed by a closer examination of the intergenerational cohort through studying the prevalence of convictions where the size of the crime family is employed as the main unit of analysis. Also, a more explicit analysis of offending vis-a-vis relationships identified in crime families will yield more information on offending patterns through a closer examination of relationship types and crime genres. This can be done following the mapping exercise of crime families which is outlined in Research Question 2 discussed further below. An examination of gender specific issues was not possible however due to the small number of convictions served by females, the use of a retrospective design and the limitations posited by the databases used in Malta study. Also, the study of gender differences is outside the scope of this study. In other words, the main aim of this research question is to create a profile of the intergenerational cohort.

The following two research questions arise from Objective 2: “to examine the type of familial relationships evident among Maltese offenders and the influence of these on crime patterns”.

Research Question 2: *What types of familial relationships are shared by individuals belonging to the same crime family?*

This rigorous exercise involves the unique mapping of family trees using the software package Family Tree Maker. The exercise provides a graphical depiction of family structures referred to as *trees*, each with its individual members mapped out. This mapping exercise allows for the linking of individuals within these *family trees*, and also identifies the number of convicted

offenders found within each tree and their relationship to each other. This process provides the most accurate depiction of the actual *family tree*, including vertical and horizontal relationships. Vertical relationships represent a parent and an offspring, involving at least two generations of convicted relatives. Horizontal relationships include those familial ties between siblings, cousins, spouses and in-laws, the relationships between which involve at least one generation. The *trees* list those individuals identified to have had a relative at CCF identified from a questionnaire administered to inmates on registration at CCF. The family *trees* refer only to those persons that have been incarcerated and not to others who may have been present in such families and never had a CCF record. The use of vignettes wherever possible injects a biographical element in describing the composition of the *trees*.

This process here builds on that carried out in Research Question 1. It explores the association between criminal convictions of offenders from different families and those for offenders from the same crime family. The examination of these relationships is deemed necessary in light of the fact that intergenerational research focuses mainly on studying the father-son phenomenon across two to five generations with an increased growing interest in studying the concentration of siblings' convictions within a family. Also, criminal career research has tackled the phenomenon of assortative partnering, and takes this further to investigate wider relationship types.

Research Question 3: *Are there distinctive crime patterns pertaining to restricted and extended relationships in crime families? If so, to what extent do such configurations potentially influence an individual's criminal activity?*

The mapping exercise carried out in Research Question 2 aids and complements the quantitative analysis of relationship type vis-a-vis offending, seriousness of offending and recidivism. The main focus here is on specific relationships between mainly siblings, parent-offspring and spouses representing restricted familial relationships identified in the graphical mapping of *trees*. Such analyses reflect a scenario in which an offender had another relative identified as a CCF resident between 1950 and 2010. A closer examination of convictions served by parents and their respective offspring aims at addressing the phenomenon of familial heterogeneity in offending. The latter is intended to study how far individuals within the same family commit similar offences; whether children follow in the footsteps of offending parent/s.

This research question also reviews the extent to which exposure to relatives involved in crime influences convictions at an individual level. Specifically, this explores the potential influences and transmission risks on an individual level of exposure to a convicted restricted relative (parent, sibling and partner/spouse) within one's crime family. This is carried out by exploring convictions representing a criminal activity committed by co-offenders whom are related to each other through familial links. Such an examination is challenging in light of research in the UK claiming that co-offending between fathers and children is rare (Farrington et al., 1996; Farrington et al., 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997) and that co-offending is likely to involve partners belonging to the same age group; a scenario which could render siblings and particularly brothers as potential partners in crime (Farrington, 1995). Sampson and Laub's (1990) concept of "cumulative learning" which claims that when children are frequently exposed to crime they tend to perceive it as "normal" conduct is examined by focusing on relationships tagged by the presence of parents and offspring. This is carried out through studying the number of convictions served by parents in the light of the number of convictions served by their offspring. A limitation here is that the potential learning cannot be examined in a way that shows whether learning is direct or indirect; neither would it be possible to study the underlying learning mechanisms between different family members. Another factor closely linked to exposure to crime is related to timing of convictions. The analysis carried out here is two-fold; the time intervals between convictions of family members (parent-offspring) and the extent, to which different restricted family members (parent-offspring and siblings) served a conviction at the same time, are both explored.

The following two research questions stem from Objective 3: "to identify and explain factors which might influence transmission of crime risks within the intergenerational cohort".

Research Question 4: *Are there specific areas in the Maltese islands that are more likely to host families with an offending history? Is there a relationship between the residential location of crime families and the distribution offender and poverty hotspots in Malta?*

The focus here is on the residential location of individuals belonging to the intergenerational cohort. A closer inspection of residence location of convicted relatives within a crime family enables exploration of how many convicted family members lived at the same address, using street level analysis. This is used to explore risks related to learning and promotion of

behaviours on account of spatial proximity. A spatial analysis is employed to examine the crime families' residential zones vis-a-vis the offender/non-offender hotspots and poverty hotspots identified in an earlier 2007 Malta study. The rationale is to compare visually whether there is a spatial coalescence between the residential location of the family component and the offender in the 2000s (when the hotspot analysis was carried out). This explores further the relationship between the location of crime families and the socio-demographic composition of these areas, using welfare data used for identification of poverty hotspots. The address (location) identified in one conviction ticket is taken into account. A significant number of studies have explored the relationship between the neighbourhood and crime. However, fewer studies have attempted to compare the residential location of intergenerational crime families with the characteristics of the neighbourhoods in which they reside which, due to spatial proximity of Malta, is likely to be highly relevant.

Research Question 5: *What are the individual and social risk factors that could “promote” crime continuity in the intergenerational cohort?*

The focus here is on examining a series of individual and socio-economic factors that could explain how such risk factors could act as promoters of the cycle of crime in intergenerational offending. This quantitative analysis examines literacy background, school type attended and employment prior to incarceration by comparing the three cohorts. Previous studies have demonstrated the need to study risk and mediating factors underlying intergenerational continuity of offending in other countries, and thus further in-depth analysis of the phenomenon is required in the Maltese context. These risk factors are not exclusive to crime families, but have been extensively studied as potential risks and buffers to crime for the offending population in general.

4.6 Conclusion

Malta is socially built on families whose way of living has been influenced by Christian values and traditions where families serve as support networks for their restricted and extended family members. Also, parents' successes are measured by the achievements of their children (Tabone, 1994). The size of the islands and the geographical boundaries have important roles

in that they provide a lifestyle which mirrors that of a socially knit community characterised by strong family and kinship ties. Kinship ties, geographic boundaries and cultural factors could render the task of the “crime promoter” easier in society where family life is very important (Abela, 1991); characterised by strong family ties with loyalty and support central to the values of a united family (Tabone, 1994). Most studies to date have focused on the potential continuity of convictions across families but the extent to which lives are linked such as the examination of families as social networks of crime is under-researched. In summary, it turns out to be challenging to study the role of the family in relation to crime in a cultural context such as Malta which is undoubtedly different from the societies in which similar studies were carried out.

This chapter has provided an overview of the aim and the objectives of the study which set the foundation for the design and the description of the five research questions. The aim of this study is to develop an understanding of the concentration of convictions served at CCF in order to explore the intergenerational transmission of crime and the evolvement of crime, particularly in a small island state where families embrace a combination of nuclear and restricted relationships (Tabone, 1994). The three key objectives are to create a profile of the intergenerational cohort, explore the relationships between inmates in crime families in association with their crime patterns, and examine potential risks linked to continuity of incarcerations in Maltese families. The next chapter will set out the methodological approach for this Malta study; outlines the procedure employed in the collection of data and sampling; discuss the available data sets; explain the data analysis process and specify the limitations directly linked to the operational aspects of the research design employed in this Thesis.

Chapter 5: Methodology

5.1 Introduction

This study employs quantitative methods and spatial analytical methods including the use of geographical information systems. Combining these research methods allows complex research questions around intergenerational continuity of offending to be investigated. It introduces objectivity into the process and facilitates replication of the methods (Burns, 2000) in any future studies on the subject. In this study, data gathering and subsequent data analysis processes are carried out over three phases. Phase 1 covers the collection of data necessary for the identification of a cohort of related inmates along with details of their convictions necessary for the creation of an intergenerational database. Also, this phase covers the quantitative analysis of data linked to the first research question (Objective 1) intended at creating a profile of the intergenerational cohort represented by crime families. Phase 2 includes the second and third research question (Objective 2) combining the mapping of family trees representing “crime families” as well as the quantitative analysis of convictions aimed at exploring the association between familial relationships and crime patterns. This is followed by Phase 3 combining quantitative and spatial data analysis investigating two research questions (Objective 3) particularly focusing on transmission proxies in crime continuity.

Quantitative analysis is used to identify related individuals belonging to families where at least two family members are involved in crime. This serves as the tool to measure the extent to which crime 'concentrates' in families and identifies the number of crimes the individuals in these families commit. In turn, this analysis subsequently highlights the similarities and differences between the intergenerational cohort making up these crime families and the general prison population. Such a comparison is required to ensure that incarcerations among relatives are compared with those within the general prison population and among those inmates without family members in prison in order to identify similarities and differences between the two groups. Comparative analysis (Bloemraad, 2013) over the decades helps to detect the extent to which this phenomenon has changed or otherwise over the sixty year period under study. The main aim of this Malta study is to focus on inmates who had some form of restricted or extended familial relationship at some point in time at CCF between 1950 and 2010; which qualifies them to be part of the intergenerational cohort; effectively a subset of the general prison population. Restricted relationships refer to relationships between members

within a nuclear family whilst extended relationships refer to relationships with relatives who do not belong to the nuclear family. The analytical process employed here is two-fold; a) examination of the individual inmates within a crime family and b) the study of the crime family as the unit of analysis distinguished by the number of related individuals⁷⁸ constituting their respective *family tree*.

The identification of incarcerated offenders belonging to the same family (“crime family”), lends itself to a graphical representation depicting such relationships in the form of a family tree. This facilitates understanding the association of criminal convictions among family members and reveals how far convictions “run” in families. Also, this allows for the potential identification of links between different crime families. Furthermore, this exercise highlights whether having a relative at CCF poses a transmission risk in exploring the phenomenon of crime continuity in Malta. The recognition of risk factors underlying possible continuities and discontinuities in offending behaviour will reveal if and why crime runs in families and possibly what circumstances enable families to desist from crime. The spatial analysis of crime families will detect any relationships that are apparent between land use, crime and the social environment in relation to the distribution of socially disorganised neighbourhoods⁷⁹ and poverty pockets in the Maltese Islands.

This chapter provides the reader with an overview of the availability of relevant data in the Maltese Islands and outlines the research design that has been adopted. A discussion of the data gathering procedure and the process linked to the analyses of both the primary intergenerational data that have been captured and sources of secondary data is presented here. This chapter considers the operational limitations of the research design.

5.2 Introduction to the Research Design

A prospective longitudinal design would require collection of data over a longer time period such as thirty years in order to cover two successive generations (Bijleveld & Farrington, 2009). This was not possible for this PhD Thesis. Also, in the absence of a criminal career database, data was not available to conduct a prospective longitudinal approach. The research design was therefore centred on the available data both in digital and analogue form through

⁷⁸ Number of individuals is represented by nodes within a crime family

⁷⁹ Those areas in which offenders reside.

which the author could identify and link families involved in crime. The author reviewed all files of males and females who had served time in prison between 1950 and 2010, rather than focussing on a sample of ‘incarceration tickets’⁸⁰. The reasons for these were the 1950-2010 time frame coincides with the Formosa’s database⁸¹ time frame and this digital data can be used as a secondary dataset. A sixty year period allows for the analysis of at least two to three generations of families, which in turn, is strengthened by the take-up of the whole imprisoned population rather than a sample.

A further difficulty was identifying a control group (composed of a number of families); since a comparison with a sample of non-imprisoned Maltese families without having had any family members in prison was not practicable. Reasons for this include the anticipated reluctance of potential participants due to the nature of the study and accessibility to participants. Intergenerational research is quite time consuming since it covers at least prospectively and/or retrospectively two generations of families and the use of a matched control group is also commendable (Van de Rakt at al., 2008). It is also noted that most studies reviewed for this Thesis (Refer to Chapter 2) made use of a criminal career database to identify a sample of related⁸² offenders and a matched control group of related non-offending individuals, to study crime continuity across generations of families. The use of a control group would have helped in comparing the intergenerational cohort with the general population of the Maltese Islands.

However, the identification of such a group would have been possible only if a prospective design was adopted to study a sample of individuals over the years from the general Maltese population irrespective of their criminal or law-abiding lifestyle. In other words, in this Malta study, the use of a matched control group was not practical for two reasons; the choice of a retrospective design limited by the absence of a criminal career database and the process for the identification of a matched control group from the general population was not clear. It is noted that, those in prison represent a small percentage of offenders in Malta. Thus, to counteract for the absence of a matched control group from the general population, the intergenerational cohort will be compared to the general prison population through the adoption of cohort analysis. The aim of this is to depict the similarities and differences between the intergenerational cohort and those who do not fall within this category. The general prison

⁸⁰ This ticket represents the official ticket awarded by the Law Courts on transferring one to CCF.

⁸¹ The dataset was created by Saviour Formosa as part of his PhD study (2007). Refer to Table 5.3.

⁸² Individuals connected by familial links.

population is the whole imprisoned population which consists of two subsets; the intergenerational cohort and the non-family component⁸³.

5.3 The Methodological Approach

The three phases of the methodology referred to above are now discussed in detail. This section outlines the methods used to answer the five research questions concerning the phenomenon of intergenerational crime transmission in Malta.

5.3.1 Phase 1a: Identification of the Intergenerational cohort

This part of the study involved the use and examination of archival information to create an intergenerational digital database which was intended to complement the Formosa digital database representing the corresponding information one finds in the ledgers. The main advantages of the use of archival data are in the extensive amount of rich information being collected spanning the decades under study and the fact that extracting data from ledgers is an unobtrusive research technique. On registration at CCF every inmate's details are recorded in the ledgers at the Registry following which a "yellow file" (Figure 5.1) is opened as a record of one's stay in prison and one is also administered a questionnaire (Figure 5.7). The process is repeated on every issued incarceration ticket. This exercise embraces the digitalisation of information found in the compiled questionnaire/s.



Figure 5.1: Yellow files

⁸³ Those inmates who do not have/have had a relative at CCF.

The compilation of the questionnaire data (Figure 5.7) complements the existing Formosa database and in turn facilitates the study of offending patterns across generations (Phase 1b and Phase 2). This adds the intergenerational component to the population, social and spatial information (Phase 3). The Formosa database was created as part of a PhD study (2007), which entailed the manual inputting of attributes from the prison registration ledgers which contain offender data from 1950 to 1999. However, it is to be highlighted that the individual inmates are not identifiable from the Formosa dataset which does not hold the CCF Code but its own relative code. The Formosa dataset is coded to ensure confidentiality, where each individual's name is kept in the CCF database and not in the Formosa dataset. Therefore, the use to which the Formosa dataset can be put is wide-ranging as it delivers a base for inputting the intergenerational link into an established dataset without the need to repeat the base-data inputting.

As this information was only in paper form, a large part of the work was to capture this data on computer for the first time and as such requires a painstaking trawl through a large number of case files. This resulted in the creation of a database which was later used to carry out univariate and multivariate analysis. All files of released inmates are stored in the strong room whilst the files of those still serving a sentence are stored at the Registry. The strong room hosts 216 boxes⁸⁴ of files belonging to Maltese inmates whilst around 500 files are at the Registry. The boxes containing files belonging to foreign inmates were separated from those of Maltese origin. Thus this facilitated the process of easily identifying and thereby studying the entire Maltese prison population. All the physical inmate files (incarcerated and awaiting-trial) had to be looked into as no distinction is made between the two categories since the files are stored alphabetically by surname (Figure 5.2).

⁸⁴ Each box contains on average 28 individual files. A number of individual files had sub-files.



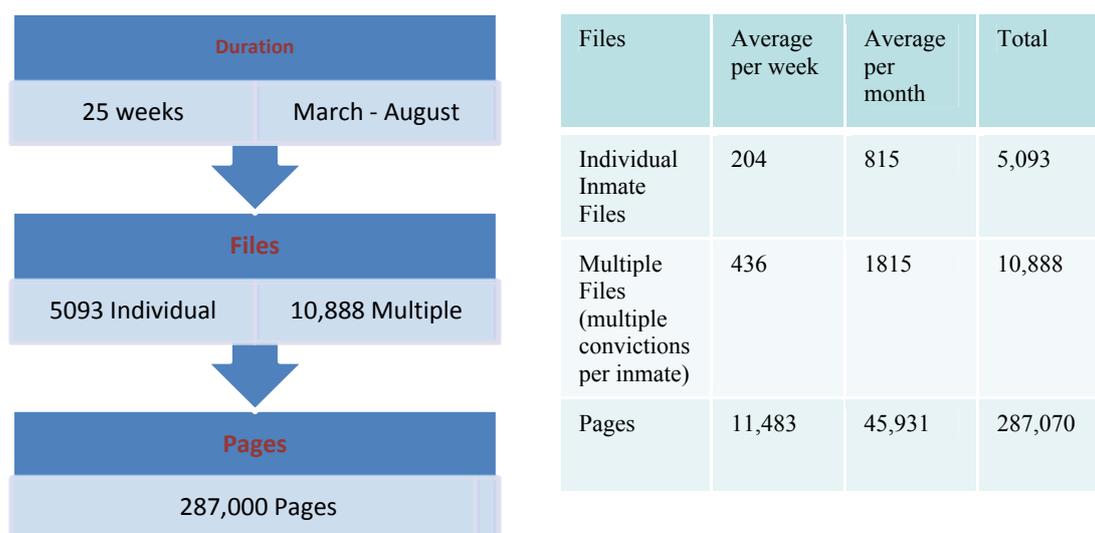
Figure 5.2: Storage at CCF

The data gathering exercise at CCF entailed a total of 20 hours per week over 25 weeks dedicated to field work plus post-gathering data cleaning and verification. The process entailed reviewing each physical file and searching for the questionnaire sheet, marking those that had a relative in prison. Once a positive intergenerational match was made, the person's file was referred to the registry official at CCF in order to extract the relative CCF offender's unique code and the respective Formosa Code. 5,093 individual inmates' files were examined and it is to be highlighted that a significant number of inmates' files had more than one sub-file⁸⁵ due to multiple conviction tickets that resulted into imprisonment. Thus, in total, 10,888⁸⁶ incarceration tickets (averaging 204 individual and 436 multiples files per week) were eventually reviewed resulting in a review of 287,000 individual pages of text (Table 5.1).

⁸⁵ A new sub-file is issued as per sentence ticket and included in the individual file, with outliers containing a sizeable box of thick files.

⁸⁶ The number reflects those individuals representing the general prison population of whose data was included in the analysis and from which the intergenerational cohort and the non-family component were derived as its subsets. It is to be noted that 14,838 files were reviewed but not all had the questionnaire filed thus could not be included in this study.

Table 5.1: Documentation review



Following this, a new code (Intergenerational Code) for each person was created entitled as the *JFP*⁸⁷ code and this was inputted in the Formosa database. This *JFP* code is the only resultant identifier in the Formosa dataset. In a summary, the *JFP* code in the Formosa data set ensured the feasibility of the second methodological phase of this study namely the mapping of crime families and exploring identified restricted and extended relationships within the prison population. A new attribute entitled “Intergenerational Code” was created in that intergenerational dataset and the relative relationship type marked in that attribute. The information from the Formosa data set was cross-referenced to the new attribute in order to elicit the offence history by family. Thus, once the links were established, all reference to names and identifying attributes were discarded. In effect, the linkages between the datasets is held within CCF and each time a positive questionnaire link is found, a check is made with the relative code in the CCF dataset which in turn delivers the relative Formosa code (SF dataset). The latter dataset is then updated with the resultant creation of the JFP dataset (Figure 5.3).

Only the offence/s, sentence/s, age, sex, relationship type, educational and employment background and NUTS 5⁸⁸ (offender’s residence) location were retained in the intergenerational data base for the analysis phase. Since this process requires linking three

⁸⁷ JFP stand for Janice Formosa Pace; this has helped the author in deciphering between the intergenerational database and the Formosa (2007) dataset.

⁸⁸ NUTS 5 is a EUROSTAT local government classification, in Malta known as the local councils level. The Maltese Islands have 68 such local councils.

different data sets together, measures have been taken to ensure that no errors are generated in this process. Such measures include running the same queries twice and checking the results against the same data set. The spreadsheet tool (Microsoft Excel) was employed as part of the inputting phase of data pertaining to the intergenerational database (Table 5.2) and served as a basis for data inputting and subsequently ported to other analytical tools such as GIS and SPSS.

Each questionnaire was inputted directly into the spreadsheet, populated with the details about family members as per Figure 5.3. Each item was then cleaned to ensure correct naming conventions (name, second name where available, surname) and also to ensure that the names were correctly inputted. The main issues encountered at this stage was the incorrect stating of father and mother's names as well as those of siblings, references to unnamed relatives, or named relative without a relative designation, misspelt names, misleading relations that had to be verified through discussion with officers, multiple names for same person, same names for siblings, and other errors. Once the data was cleaned, the attributes were forwarded to the CCF for linkage to the CCF database and extraction of the SF code. Quality control was carried out through a process of verification of each person's name against that of their relatives in each respective file.

In most cases, the names and identification number could be found in each file particularly the court documentation which lists the parentage details and at times even the relationships between the persons. Where such persons could not be identified such as false positives (family links between people that do not exist) each time a question on this case arose, discussions with prison officers were carried out to try and elicit the links, with most links being established, though getting difficult the further back one goes towards the 1950s. This was regarded as only a potential relationship consequently no link between this person and the family tree was made as in reality the relationship was not established in full. In turn, false negatives (failing to identify links that do exist) were tackled in the same way, though some persons did not specify that they had relatives in prison and one had to check against addresses, names of children and grandchildren in each of the questionnaires throughout the files.

As a matter of procedure, all pages in each file were reviewed to ensure that any potential relationships were identified over time, since some relatives identified in the earlier years could have died and new persons introduced in the relatives section. Again, every potential name was checked with the officers and in some cases, advice was sought from the previous records officers. The process entailed the reverting to the CCF for clarification and verification of

family structures that required review. Data was also cleaned for errors in names such as typos, names in Maltese or in English, names that changed over time (example – Giovanni to Ganni to John). Nicknames were also checked for potential errors, whilst mother’s maiden surname was also checked.

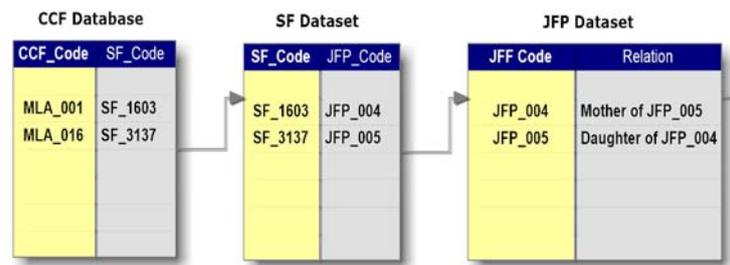


Figure 5.3: The three databases linkages employed in the fieldwork process

The intergenerational database contains information on those who have been sentenced⁸⁹ and those who are still awaiting trial⁹⁰. The table below (Table 5.2) depicts the layout of the intergenerational database created for this research. Next to inputting of data, the data cleaning process proved to be a dreary and slow process since two extensive datasets were involved. However, this was, to a certain extent, obligatory in order to make up for typos in the datasets, the identification of missing codes, having two family trees for the same group of offenders and the identification of same offender appearing twice under different codes. The use of the CCF database, the Formosa database, the Electoral Register, the government Common database, contacts with CCF Registry personnel and at times revisiting the original physical files, assisted this data cleaning process.

Most of the data outlined in Table 5.2 is derived from official records and include information such as the identification number⁹¹, date of birth, sentence delivered by the court (type of crime; category; date of sentence and type of sentence; magistrate/judge). Other information about past/present relatives at CCF; employment; status and school attended is provided by the inmate through the questionnaire administered on registration (Figure 5.7). The compiled family trees (Refer to Phase 2a) were each given an *ig_no* through which one could classify

⁸⁹ Example JFP code 111 i : the letter i stands for inmate.

⁹⁰ Example JFP code 112 i-AT the letters AT stand for awaiting trial.

⁹¹ A unique number given to one on birth. Those who acquire a Maltese nationality are also given such an identification number.

the size of the crime family (nodes). The “identified” relationships mentioned in the questionnaire were cross checked with the files of identified relatives whenever possible. The next process comprised quantitative analysis of the diverse variables within the datasets so as to distinguish between the general prison population, intergenerational cohort and those who do not belong to the latter (non-family component). These variables include age, sex, literacy, single parenthood, parents alive or deceased, recidivism, multiple sentences, number of conviction tickets, employment history, welfare benefits, length of sentence, multiple sentences and offenders’ residence. The linkage between the Formosa dataset and the new intergenerational entries establishes how offences evolved within families, and also across different families who may have relationships with other families. The term evolves refers to the transition from one crime category to another reflecting seriousness, diversification and specialisation, the discussion of which phenomena will be taken up in Phase 2b.

The exercise carried out in this Phase 1a sets the foundation for exploring the five research questions stemming from the three research study objectives.

Table 5.2: Intergenerational database structure

JFP_Code	Category	Date of sentence	Court Delivering Sentence	Offence/s	Sentence text	Age	Intergenerational	IG_No	Profession	Residence	Status	School_Type
10001	FALS	09/12/1999	Mr.Justice P.Vella L.L.D.	Theft	2 years imp	25	brother 23, sister 786	ig_001	unemployed	Hamrun	Single	PGSM
10002	FALS	12/12/1999	Magt C.Scerri Herrera L.L.D.	aggravated theft	3 years imp	35	cousin 786	ig_360	unemployed	Hamrun	Single	PGSM
10003	MALS	14/01/2000	Appeal-N.Arrigo L.L.D.	P & T of drugs	2 months and LM100	22	cousin to 1023	ig_059	mason	San Lawrenz Gozo	single	
10004	MALS	18/01/2000	Mr.Justice V.De.Geatano L.L.D.	Drugs	4y3 months and 3000 and 6 months and 241	20	uncle of 1169	ig_015	unemployed	St.Venera	Single	PGSM
10005	MALS	20/01/2000	Magt C.Scerri Herrera L.L.D.	Poss Drugs	1 years imp and s/s of13m(1996)	37	brother of 11197, 4568	ig_320	chef	Lija	Married	
10006	FALS	17/05/2000	appeal Mr.Justice V.De.Geatano L.L.D	Poss Drugs	5 months imp	32	husband 789	ig_089	unemployed	Qawra	Married	
10007	MALS	28/07/2000	Magt.Micallef Trigona L.L.D.	Fraud	9mon and 1 years imp 4m	35	mother 5678	ig_100	notary	Hamrun	Single	PGSM
10008	MALS	10/10/2000	Magt.A.Lofaro L.L.D.	Prostitution	3 months imp	24	cousin of wife 5689	ig_278	unemployed	Sliema	Single	SGSM
10009	FALS	19/10/2000	Magt.N.Cuschieri L.L.D.	P & T of drugs	7 months imp and LM300	31	father 4526, grandfather 5	ig_398	unemployed	Valletta	Married	SGSM
10010	MALS	01/02/2001	Magt.Noel Cushcieri LLD	Poss Drugs	18 months imp LM600	24	brother 9896	ig_400	unemployed	Zabbar	Married	PGSM
10012	MALS	27/06/2001	Magt.C.Scerri Herrera L.L.D.	Grv injury on 4yr old child	1 years imp	28	brother 7845	ig_432	unemployed	Valletta	Single	SGSM
10017	MALS	22/04/2002	Criminal Court of Appeal	Failed to pay multa	6 months imp	49	son 5783	ig_023	H/Wife	Sliema	Married	PGSM

The following gives an overview of the significance of each variable in Table 5.2:

- The JFP code is necessary for future reference when using the Formosa dataset and is the only identifier in this respective dataset;
- Category refers to male/female and nature of sentence whether short/long;
- Date of sentence: refers to date when court delivered the sentence and could be useful in analysing timing of offences in terms of intergenerational mechanisms;
- Court Delivering sentence refers to the Judge/ Magistrate delivering the sentence
- Offence offence/s awarded by an incarceration term
- Sentence text refers to the sentence awarded by the law courts
- Age: refers to age on conviction and this could be linked to the previous variable;
- Intergenerational: refers to the nature of relationship/s with other inmates; it is useful in revealing the dynamics between and within crime families;
- ig_no: refers to the family tree number in which in which the offender was inputted as a family tree structure using the family tree maker;
- Profession: refers to the job occupied prior to incarceration and this variable is necessary for depicting the offender's socio-economic status;
- Residence: refers to the geographic location (residence) prior to incarceration and this is necessary for spatial analysis;
- Status: refers to marital status (married or single) and is necessary to depict the links between families in crime through marriage or partnership;
- School type: refers to primary and/or secondary and/or tertiary level of education completed and this variable is necessary to analyse data in terms of educational background.

5.3.1.1 Phase 1b: The Intergenerational Profile.

This methodological phase explores the first research question aimed at detecting, for the first time, whether or not crime and convictions run and concentrate in Maltese families similar to studies discussed in the literature review. The latter claim that the family is a risk/mediating factor acting potentially as a crime promoter. The methodological process employed here also explores crime patterns of individuals belonging to crime families, a theme that requires further investigation to the understanding of crime continuity. All conviction tickets awarded by a

prison term (sentenced and awaiting) to Maltese male and female nationals were accounted for in this quantitative exercise.

The first step was to identify, by decade, those who had relatives at CCF (Table 5.2) and those with no familial links from the Formosa database; the former are referred to as the intergenerational cohort whilst the latter represent the non-family component. Also, both are the two sub-sets of the prison population. This was followed by comparing the number of convictions, recidivism (two convictions tickets classified one as a recidivist) and co-offending through comparative cohort analysis to explore crime prevalence and to study whether crime concentrates in a small number of families. In the absence of a control group the non-family component served as a comparison.

The second part of this research question also examines potential distinctive crime patterns within the intergenerational cohort. A demographic overview, studying age and sex variables was carried out for each cohort. This was followed by an in-depth investigation of offence using “main offence category” and “sub-category offence” (Refer to Appendix 2) for both the intergenerational cohort and non-family component. This was carried out to explore potential crime exclusivity for respective cohorts. In turn, convictions for the intergenerational cohort were examined so as to indicate which crimes, if any, tend to “run” in crime families. Also, the intensity of criminal careers by cohort was investigated through “sentence length” and the number of generations representing continuity of convictions. A trend-line analysis was carried out investigating the prevalence of convictions as against the size of the crime family in light of research claiming that having one parent as an offender is enough (Farrington et al., 2009) to serve as a risk factor for the intergenerational continuity of offending.

5.3.2 Phase 2a: Compiling Family trees (Research Question 2)

Most research to date has focused on studying a target sample of fathers and sons, siblings and to some extent partners. However, the sample used for this study allows for the compilation of family trees of all related offenders, identified in the Registration Questionnaire (Figure 5.7). It also allows for a visual depiction of the potential fusion of two or more crime families, a gap in the current literature. This phase explores the second research question which aims to identify the nature of potential restricted and extended relationships between inmates interned at CCF between 1950 and 2010. It also sets the groundwork for Phase 2b as it points out the

nature of relationships representing association of convictions such as vertical (e.g. parent-offspring) and/or horizontal (e.g. siblings); the number of individuals belonging to a crime family and the number of generations representing continuity of convictions.

All the data that has been gathered through the whole process outlined in Phase 1a was eventually transferred into the *Family Tree Maker 2011* (Refer to Section 5.6.1). This software can be used to create family trees and identify lineages across generations of families. This software was used to build family trees of Maltese offenders that aided the researcher, at a later stage, to graphically analyse crime families as well as to facilitate the potential identification of the social networks and socialisation practices based on family links between offenders. Family Tree Maker 2011 is a software developed by *Ancestry.com* which serves as a family lineage tool that enables users to build a family tree structure, inclusive of background information and relationships in a horizontal (such as siblings, spouses and cousins) and vertical mode (parental relationships). The main output of this tool is the functionality in creating a structured depiction of each person's relationships. The tool also enables the fusion of diverse families into an extended structure, where over time the smaller families aggregated to form a larger family tree through marriage/partners, birth of a child or other relationships. The software is enhanced through the depiction of these relationships in a graphic format that can be printed out. The descendant charts were used for this study. Nonetheless, the tool does not claim to cover all aspects of lineages in terms of familial relationships but is an excellent tool to chart familial relationships and help identify individuals in their respective family tree. In addition, the tool was not used to connect to an online database since no such family database exists for Malta and even if this was available such would not have been possible since the identity of individuals mapped in the study's family trees was coded for ethical reasons.

The tool, as shown in Figure 5.4, was used to input the new code called JFP_Code (Table 5.2) which was uniquely given to every person. The trees were completed family by family, with eventual linkages between families where identified. The resultant trees varied in size and composition with some reaching large structures. When links were not clear, various processes were employed to identify the persons. Examples include: the appearance of two names that eventually resulted that they referred to the same person; a female offender had more than one partner and many children from the different partners, which children were given similar names and also where the same person exhibited different surnames and where females changed their surname on marriage. Each lacuna was clarified through the help of the CCF, by undertaking further searches in the other documentation they had such as the birth certificate, offender

records card and other professionals' records. The resultant 600+ trees indicated the realities of the Maltese situation even prior to the analytical process itself. The smaller families number more than the larger ones, some of which were combined to other trees forming larger structures representing links between crime families.

The mapping of *trees* follows the creation of the intergenerational database. This exercise was pivotal to meet the requirements for answering the second research question (Objective 2) of this Malta study. This tool served a major purpose in the study mainly due to its ability to create structures (based on nodes) and lineages that emulate family trees, which also allowed for the integration of the different trees that became linked through various new relationships. The tool also allowed for an understanding of how the incarcerated individuals were related to other offenders, sometimes rendering highly complex relationships that could not have been revealed by a card system. In addition, this allows for the exploration of offending patterns, studying criminal heterogeneity with a crime family and also examining the similarities and differences in the criminal convictions of family members. It also identifies the number of individuals partaking to crime within the same crime family thus focusing on studying exposure to a criminal relative as transmission risk (Refer to Phase 2b). An example of a family tree definition screen produced by the software is shown in Figure 5.4.

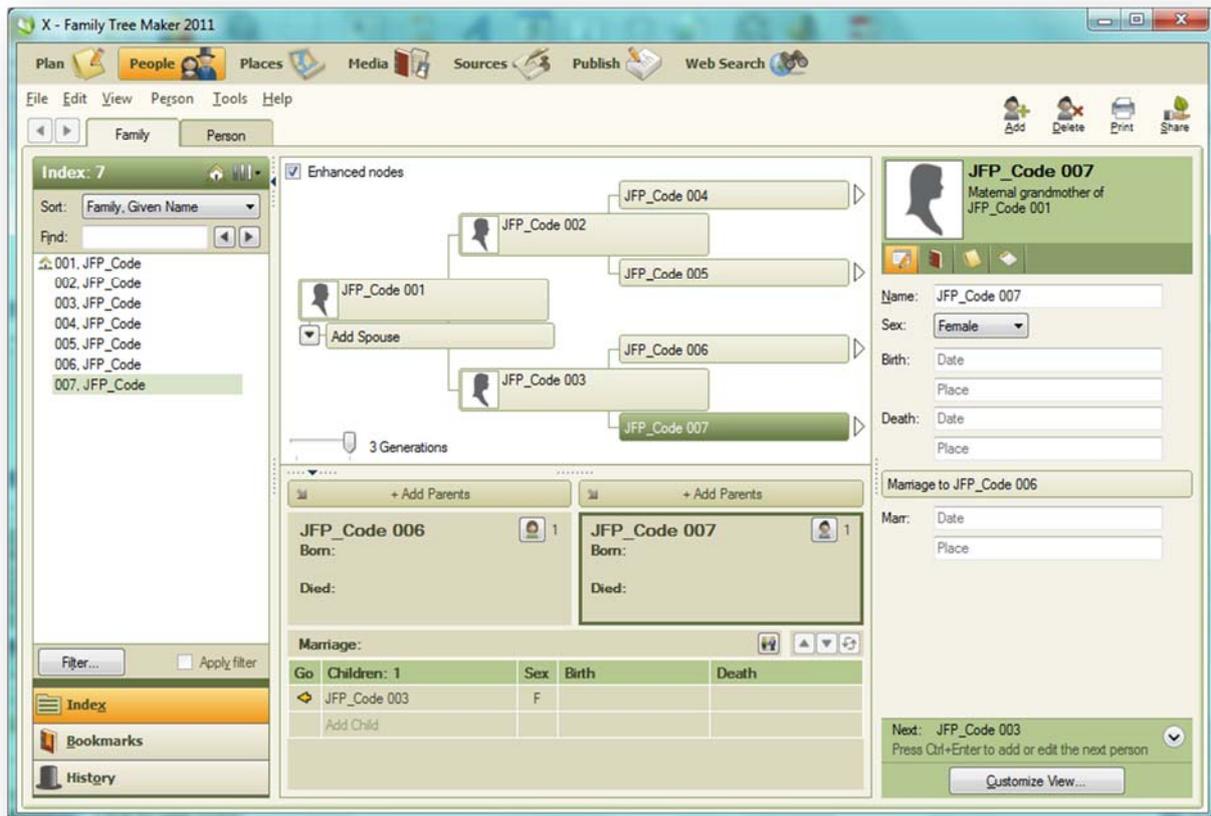


Figure 5.4: Family Tree Maker Input Interface

Following the compiling of family trees, the output of each family tree was created as a *pdf* file (Figure 5.5) which allowed for further analysis of family structure; descriptive quantitative identification of the number of family members⁹² involved in crime and the nature of relationships (vertical⁹³ and/or horizontal⁹⁴) between convicted family members. When necessary, pen-pictures were used to inject a biographical component to the description of a family tree and to highlight the nature of relationships and the “criminal careers” of individuals in a particular crime family.

⁹² The number of members in crime is referred to as nodes (n); with n being 2 (minimum) to 10+.

⁹³ From parents to offspring.

⁹⁴ Includes siblings, partners/ spouses, uncles/aunts, cousins and in-laws.

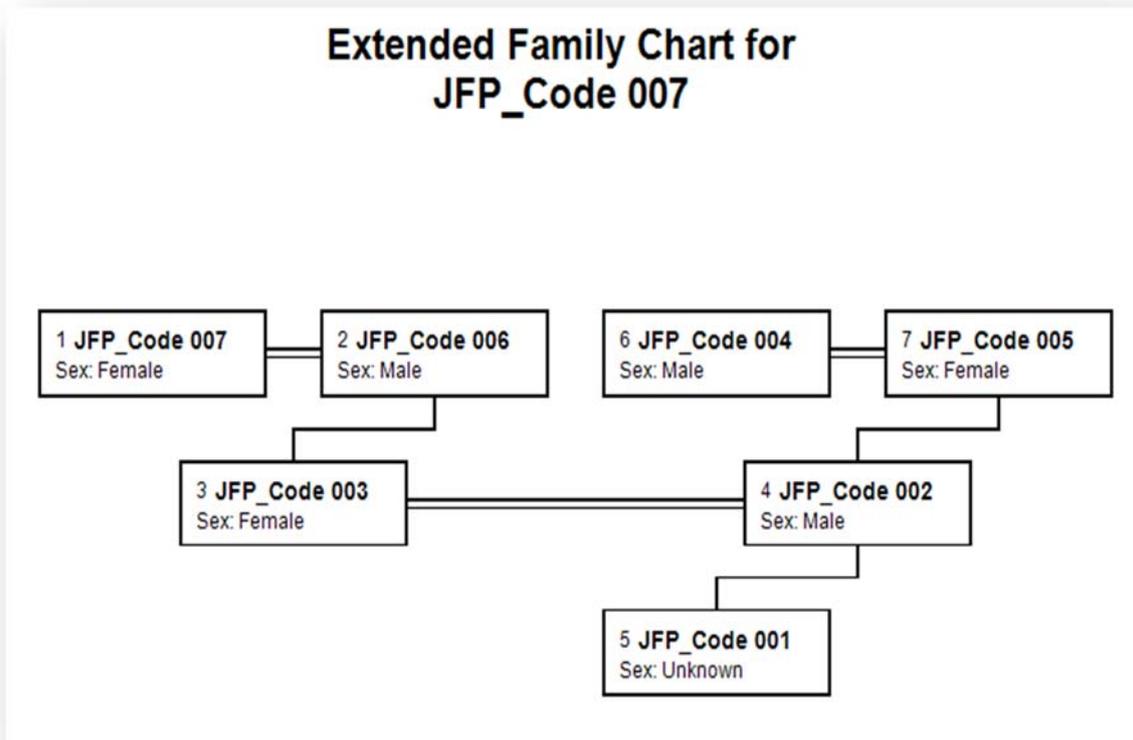
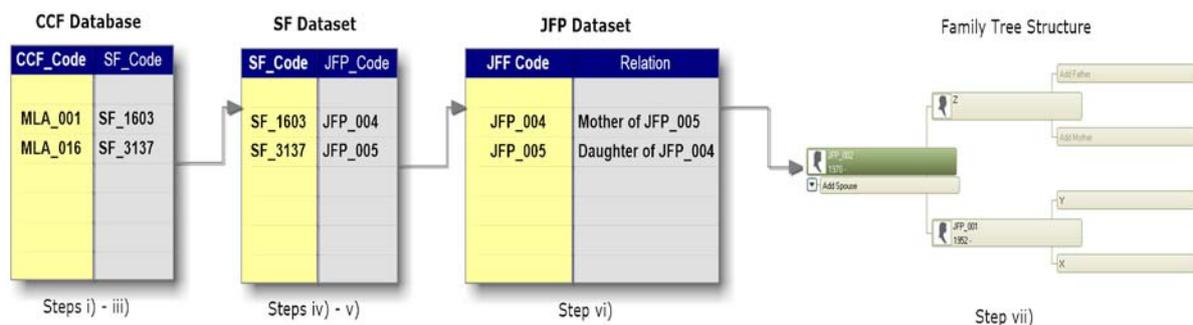


Figure 5.5: Family Tree Maker Output Tree

In summary, the process entailed a complex and lengthy phase (from Phase 1a to Phase 2a) which resulted in the transference of the analogue data to a prepared dataset to the creation of a compilation of family trees. Figure 5.6 depicts the process in its entirety where the different datasets were linked to the relative family trees representing crime families. The methodological exercise which follows (Phase 2b) aims at exploring, in-depth, crime patterns of the individuals belonging to crime families.



Process:

- i) Searching through the physical archives - file MLA_001 questionnaire shows a relationship input (brother of MLA_016)
- ii) The prison dataset is searched for the relative SF_Code (the relative number from the Saviour Formosa dataset)
- iii) The relative codes for MLA_001 and MLA_016 were identified as SF_1603 and SF_3137 respectively
- iv) The SF_Code (SF_1603 and SF_3137) are then searched for within the SF dataset and the resultant records are given a new JFP_Code, in this case JFP_004 and JFP_005
- v) The code is inputted in a new column in the SF database to ensure a link for later queries on social data
- vi) The new codes and the relationship type are inputted in a new dataset (JFP Dataset) held by the researcher
- vii) The relationship and JFP code is inserted a family tree structure that reflects that same relationship

This process ensures that there is no direct link between the personal data in the CCF database and the JFP Dataset. The SF Dataset holds the background data which will enable the researcher to analyse the relationships against the social data.

Figure 5.6: The full model

5.3.2.1 Phase 2b: Crime patterns of the intergenerational cohort.

An in-depth investigation of the types of crimes commissioned in the awarding of a prison term was carried out to explore a further gap in the literature. This was related to the seriousness of offending in crime families, as the main tenet of research question three.

Crimes sanctioned by a prison term at CCF (using main offence category; Refer to Appendix 2) for three specific restricted relationships were examined. These relationships include convictions tagged by the presence of parents and offspring, siblings and spouses. The choice of relationships emanates from research primarily focusing on fathers and sons, an increased interest in siblings and the need for more research in exploring spouses and assortative partnering. An analysis of crimes committed by parents and their offspring was undertaken to explore to what extent children commit crimes similar to those committed by their parents. This was pursued through a detailed analysis of crimes and recidivism trends where the family size was employed as the main unit of analysis.

The investigation of exposure to crime as a transmission risk, a phenomenon which undoubtedly needs further investigation was carried out by three tests. The first test explored

convictions representing co-offending where partners in crime belong to the same crime family, as determined by the *ig_no*. The second test investigated the number of convictions served by parents in relation to the number of convictions served by their offspring, to explore the concept of “cumulative learning”. This was supported by an investigation linked to the timing of convictions; one focusing on timing of convictions of parents and their offspring and the other test exploring convictions served by siblings at CCF within the same year.

Phase 3 takes the analysis of transmission risks one step further by employing spatial analysis tools as well as quantitative methodological techniques.

5.3.3 Phase 3a: Spatial analysis

This main tenet of this phase is to conduct a comparative analysis of the location of families involved in crime, poverty areas and generic offenders’ hotspots exploring the fourth research question aimed at filling another research gap.

The first spatial exercise focused on mapping the residential location, of individuals belonging to crime families to explore their choice of residential neighbourhood at NUTS 5 level (see glossary). In addition, census data was used to examine the changing nature of the areas within which crime families lived in contrast to the demographic changes noted over the decades in the 68 councils that constitute the Maltese islands. This was consolidated through an in-depth examination of the residential location employing family size as the main variable. The second spatial exercise employed in this phase, examined data for the 2000s aimed at studying the potential concentration of families in specific towns on the islands through the Craglia, Haining and Wiles (2000) risk assessment methodology (Refer to Section 5.6.3). Also, the influence of the community on the crime families was explored by studying the amount of time offenders spend in their community in view of the number of years they spend in prison. This was undertaken through a more in-depth spatial analysis focusing on exposure to a restricted relative involved in crime. In other words, this investigation studied geographical proximity by examining two restricted relationships; parents-offspring, and siblings living in the same street. The addresses were filtered by street names.

This spatial exercise explores the distribution of crime families in poverty and offender hotspots, as identified by Formosa (2007). The poverty hotspots were created through a study of a dataset that analysed the presence of poverty through the mapping of the UB

(Unemployment Benefit) provided by the welfare department. In addition, the offender-residence was used to create spatial ellipsoids representing poverty and offender hotspots using the software CRIME Stat III (Formosa, 2007). These were, employed in the comparative spatial analysis in this research phase. The tests carried out here mapped the distribution of offenders belonging to the intergenerational cohort in poverty hotspots and offender hotspots respectively, followed by an examination of the spatial distribution of offenders in the intersecting hotspots. In summary, this spatial exercise explores geographical locations as potential transmission proxies in crime continuity across generations of Maltese families. The study is further enhanced through an examination of other potential risk and mediating factors discussed in Phase 3b. These, provide additional information about potential risks that could accumulate to a situation comparable to a scenario where “causes of causes” could promote crime continuity.

5.3.4 Phase 3b: Individual and socio-economic factors

This phase intended to consider the fifth research question that investigates transmission risks in view of limited research on how and why crime “runs” and concentrates in families.

The focus here is on literacy, schooling and employment as socio-economic variables separately linked to the prevalence of offending in a number of reviewed studies. The first test compares the literacy background of the intergenerational cohort and non-family component as sub-sets of the prison population. This was supported by a further test employing size of the crime family as a variable. The same procedure was repeated to examine history of schooling particularly concentrating on school level (e.g. primary, secondary etc) and school type attended (e.g. Government, church and independent schools). ISCO codes were used to study the employment record of inmates in crime families prior to being interned at CCF for the two cohorts. This was carried enhanced through comparing unemployment rates of inmates belonging to a crime family with those for residents generally in the Maltese islands.

5.3.5 Summary of the Methodological Approach

The techniques employed in this study were made possible through the analysis of the offences resulting in a conviction ticket, the identification of the number of offenders who received these tickets (some would have multiple tickets), the identification of convicted relatives followed by mapping of *trees* (crime families) and finally a comparison of the intergenerational cohort with the non-family component and the general prison population. The analysis compares incarcerations over a number of decades, and studies the links between individuals based on familial relationships. The structures referred to as *trees* represent crime families and provide graphical representations of the nature of relationships between individuals belonging to crime families. The intergenerational cohort represents those inmates who had at least one relative who served a prison term at CCF during the period under study. The study takes into account all conviction tickets of Maltese nationals⁹⁵ awarded with a prison sentence including those sentenced and those on the awaiting trial list who were interned at CCF between 1950 and 2010. The use of this sixty year period facilitates a study of changes in convictions, and the identification of crime trends and also covers a number of generations of crime families.

The research process entails three phases; Phase 1: identification of inmates related by restricted and extended relationships, setting the groundwork for the creation of an intergenerational database used for the creation of trees representing crime families as well as an in-depth outline of the intergenerational cohort employing quantitative methods. Phase 2: the creation of *family trees* and the quantitative analysis of variables through single and cross-variable analysis from information inputted in the Intergenerational database with the use of other secondary sources such as the Formosa database to explore the association of identified relationships in relation to crime. Phase 3: blends quantitative and spatial methods using the intergenerational database, Formosa database, census data and welfare data.

The following section outlines the available data; sampling methods used and discusses the research location (CCF) where primary data was collected.

⁹⁵ A Maltese national refers to anyone born in Malta to Maltese parents; anyone who has obtained a Maltese nationality after five years from marriage to a Maltese citizen and anyone born in Malta to non-Maltese national but at the age of 18 opts for Maltese citizenship.

5.4 Data collection and sampling

The Corradino Correctional Facility (CCF) represents the main correctional authority on the island as a civil prison (Azzopardi and Scicluna, 2009). Whilst at Corradino Correctional Facility, an inmate can serve his/her sentence at the Civil Prison, at the Substance Abuse Therapeutic Unit (SATU), at the Forensic Division within Mount Carmel Hospital, or at a drug/alcohol rehabilitation centre. Young offenders serve their prison term at YOURS; which section was reallocated outside CCF in 2013.

A number of studies outlined before have focused on the use of conviction tickets data⁹⁶, self-reported crime and arrest statistics. However, in this Malta study conviction tickets were used as an official source of data on detected criminal offences since they include all those who have spent some time behind bars either sentenced and/or awaiting trial. Also, this exercise, being a predominately quantitative approach, facilitated the creation of a database which was eventually used to carry out single variable⁹⁷ and cross-variable⁹⁸ analysis. Conviction tickets were chosen as the base data source, as opposed to court data or secondary data as is the case with statistical data published by the National Statistics Office. The former does not compile the data in one area and is dispersed across the different courts, whilst the latter only holds summary data pertaining to generic crime and nothing is available on individual data. The only source for individual's data and the potential links to relatives and criminal background is sourced in the prisons.

In this study over 10,000 conviction tickets were reviewed including those who were sentenced and those awaiting trial. Incarcerations correspond to relatively serious crimes representing the “hardcore offenders”, irrespective of the fact as to whether or not one is sentenced or is still on remand. A number of individuals on the ‘awaiting trial list’ are denied bail and are remanded in prison waiting to be adjudicated as they are considered as “high-risk offenders”. The court issues a conviction ticket which is a document that represents the official record needed for one to be transferred to CCF. This applies to those sanctioned by a prison term and those who are requested to wait for trial at CCF. Also, a significant number of inmates who are awaiting trial face charges for crimes that would be highly likely to result into an imprisonment term whilst, on the other hand, a significant number of others are awaiting trial for a series of crimes. One

⁹⁶ This represents what in the UK is known as Convicted Offender Records.

⁹⁷ These refer to descriptive statistics of single variables e.g. counts and percentages of age groups.

⁹⁸ More than one variable is studied; e.g. comparing age and sex.

also has to consider the court delivering sentencing practice and the fact that, by the end of this study a significant number of those on remand and likely to be convicted.

In the absence of a criminal career database, the data gathering process necessitated identifying, gathering information and studying what was available from the CCF and to use this to identify the restricted and extended relationships between inmates at CCF. Following this exercise, the researcher was directed to meet with the Manager responsible for the Registry Section. It transpired that all inmates are registered immediately on entry and are administered a personal background questionnaire (Figure 5.7).

**Corradino Correctional Facility Valetta Road, Paola. CMR 02.
Registry Office – Tel: 23668420, 23668419 – Fax 21694905
*Newly admitted Inmates Questionnaire***

Date of Admission:		Name & Surname:	
Nickname:		Date of Birth:	
Place of Birth:		ID No/Pass No:	
Address:			
Tel/Mob No:		Nationality:	Religion:
Education:		Status: Single / Married/Separated/ Co-habiting *	
Spouse/partner:-		Next Of Kin Tel No :	
Children Boys :			
Children Girls:			
Father's Name:		Mother's Name:	
Family Address:			
Father/Mother Occupation			
Brothers:			
Sisters:			
Drug History			
Drug & Alcohol Treatment:		Sedga Caritas	Sta Marija Others
Probation Officer:			
Lawyer's Name:		Pending Cases:	
Medical Treatment:			
Previous Criminal Record:			
Family Criminal Record:			
Hobbies:			
DESCRIPTION:			
Weight:		Height:	Complexion:
Hair:		Eyes:	
Marks:			
Jobs Held:			
Driving License:		Own Car:	
* I declare that I have been informed that I have three (3) weeks to confirm on oath any established relationship.			
Data Protection Notice <small>The Correctional Services Dept collects and processes information to carry out the functions under the Prisons act 1995. All data is collected and processed in accordance with the data protection Act 2001 and the Prisons Act of 1995.</small>			

Inmate's Signature.

Officer's Signature.

Figure 5.7: Registration Questionnaire

The data gathered through these questionnaires includes personal information about the parents, spouse and children of the inmate, medical history and information on problems related to substance abuse, employment history and personal/family incarceration history.

Consequently, every inmate has a file registered at the CCF registry. On review, it was noted that the content of the questionnaire turns out to be useful for the first phase of data gathering since inmates at the registry are questioned about their family criminal record and they list the relative/s that had been served with a prison sentence. This was corroborated in various ways by the author of this Thesis; through cross checking with the government common database that holds personal identification information, double checking with previous questionnaires in case of recidivism instances, cross-checking the information with siblings and/or relatives questionnaires. The most significant critical collaborative element was the fact that Malta is very small and many citizens know each other, which renders it difficult to lie to the registry officials without eventual verification by the same officials with families and colleagues within the prisons, police and courts, which entities fall under the same Home Affairs Ministry.

A formal request in writing was sent to the CCF Director and other officials, followed by meeting with the same director and the registry officials. During this meeting, the data gathering process was explained, the health and safety issues and the ethical procedure that were to be adopted throughout the field research held at CCF, as well as the subsequent storage of data. Also, the ratification of the Data Protection Act in 2001⁹⁹ pledges that any data made available for research will not jeopardise privacy and security of individuals. Another data restriction relating specifically to crime data, is the 80-year moratorium; for example a file opened in 1980 will not be available for research and subsequent analysis at the individual level until 2060 (Formosa, 2007). Consequently this renders access to disaggregated crime data almost an impossible task. However, since there are only four PhD criminologists in the Maltese Islands, the need for new research is pivotal to policy makers, approval was granted. As approval to access the questionnaire was sought and granted and since the questionnaire is not recorded digitally, CCF granted access to review the physical inmate files at the registry and in the 'bunker' which serves as a strong room for archiving to cover the sixty year period. Figure 5.8 depicts the CCF location where the research took place.

⁹⁹ Chapter 440 of the Laws of Malta <http://www.legal-malta.com/law/data-protection-malta.htm>



Figure 5.8: CCF aerial imagery

5.5 Data sets

This section provides the reader with a discussion on the accessible data sets employed for this Malta study. It also covers issues related to reliability of data and the limitations of the research design.

The inputting of data by Formosa involved the labour-intensive copying of information of convicted persons from ledgers that are stored at the National Archives¹⁰⁰. The manual inputting of data and illegible handwriting at a time when ink was used affected the process in terms of time rendering it very laborious. In summary, the use of this dataset as a secondary database for this research aided the current researcher in economising on time as well as in setting the groundwork for data gathering. Table 5.3 lists those attributes gathered during this process from the Formosa Database.

5.5.1 *Data availability for this Malta study*

The ledgers as seen in Figure 5.9, which form part of a set of data archives that sit at CCF, contain information on the offenders' background as listed in Table 5.3.

¹⁰⁰ Santo Spirito National Archives in Rabat, Malta. The storage of “old” non-active files are stored there being a safe place in terms of safeguarding deterioration and protection from intrusion and damage of pages by persons including inmates.

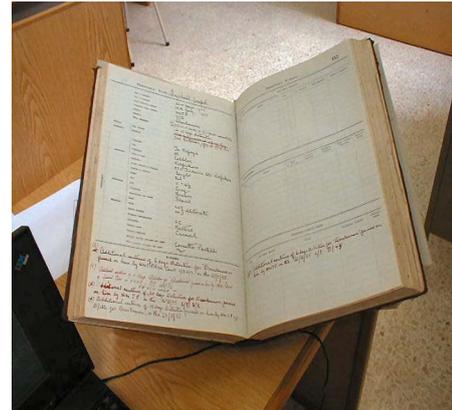


Figure 5.9: Physical Ledgers

Table 5.3: Attributes relevant to the study

Attribute	Description
Offender category	Category designated by age and sex of inmates: YMLS - Young Male Long Sentence MASS - Male Adult Short Sentence FALS - Female Adult Long Sentence
Sex	Sex of inmate
Sentence length long/short	Categorisation based on length of sentence: SS - Sentences less than 30 days LS - Sentences of 31 days (1 month) or more
Unique prisoner code	Each prisoner was designated a code unique to each person which eliminated the need to identify the name
Date of sentence	Date of sentence delivered by the courts
Date of reception	Date of entry at CCF, which date may differ from the date of sentence due to earlier entry such as due to entry under remand or other earlier sentences
Court delivering sentence	Name of Court delivering the sentence such as the Criminal Court, The Court of Criminal Appeal
Conviction ticket number	Each sentence is tagged with a conviction ticket number, a number unique to the court system
Offence coded	Each sentence category is designated a code which defines the main offence category and the sub categories. An example would be:

Attribute	Description
	1 - Homicide as main category 1a - Intentional Homicide as sub category 1b - Involuntary Homicide as sub category
Sentence length	Sentence length converted in days
Discharge (date)	Date of release from CCF
First timers/recidivist	Status of Incidents, whether through entry as a first timer or recidivist
Age (years)	Age in years at time of entry
Profession	Job type or profession at time of entry
Place of birth	Inmate's town of birth
Residence town	Inmate's town of residence at time of entry
Marital status	Inmate's marital status (single, married, separated, divorced, widow/er) at time of entry
Number of children	Number of children at time of entry
Literacy	Status of literacy as per ability to read and write or semi-literate (ability to either read or write)
School type	School type attended as per last year of attendance
Religious denomination	Religion adhered to
Nationality	Nationality at time of entry
Amnesties awarded	Category and number of amnesties awarded whilst offender was in prison at any time since first entry

(Source: Formosa database)

Figure 5.10 lists the main records reviewed that include the hardcopy ledgers, the individual personal files, the main CCF database holding offender sentence and offence history, the data entry administrator (a tool that is populated by inmate background), the cells register (inmate cell number) and the sentence calculator which was developed to calculate the earliest date of release.

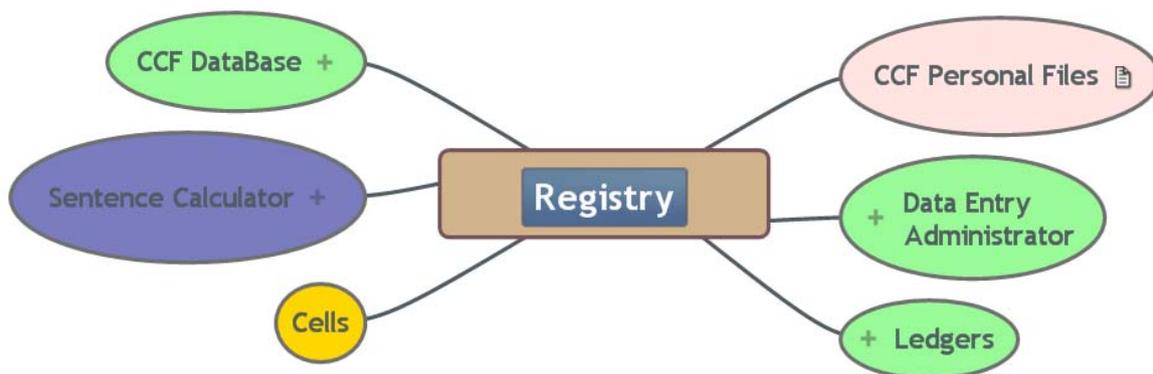


Figure 5.10: Main CCF Datasets

The variables within each dataset were listed in a mind mapping tool which allowed the identification of links between the CCF datasets which helped the researcher to extract the data required for this study. Figure 5.11 lists those attributes pertaining to the ledgers, ranging from personal background information to offence and sentence information.

However, in addition to its cut-off point dated 1999, the Formosa database (1950-1999) lacks the intergenerational component since it was not designed to identify family relationships between offenders in prison. Note that as part of this study, the Formosa dataset has been updated to include those persons who have been incarcerated from 2000 to 2010 and has been made available to this study. In addition, permission has been granted from Formosa to access the dataset in coded form so that individuals cannot be identified and confidentially maintained.

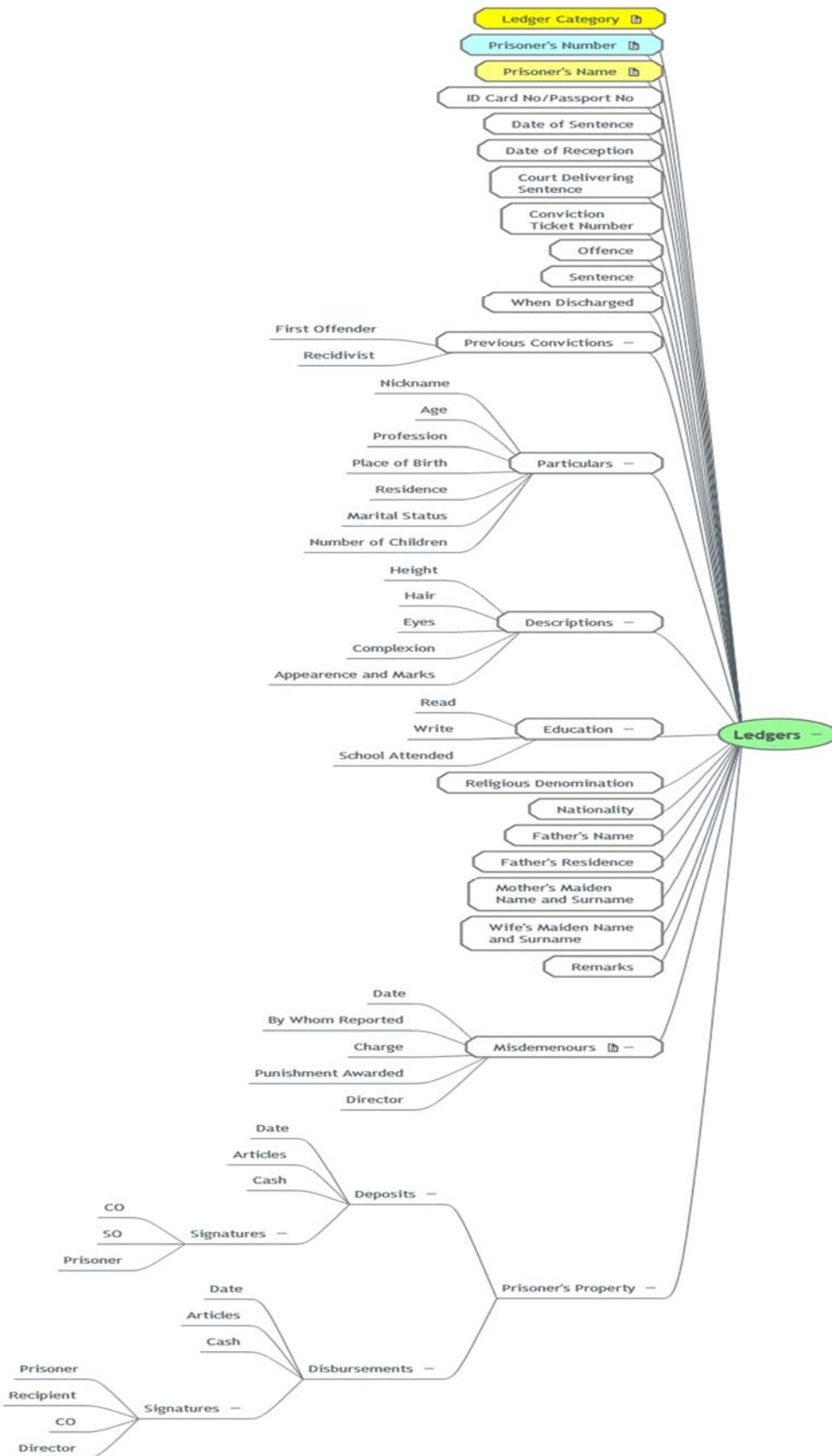


Figure 5.11: Main CCF Ledger Attributes

Other significant available data includes the Census Data compiled by the National Statistics Office¹⁰¹ and the Welfare data (produced by the Department of Social Policy) for the years covering the 2000s. The Census data adds more geographical detail at NUTS 5¹⁰² level and where necessary at Enumeration Areas (small administrative areas comprising 150 households) (Figure 5.12). The different levels of data are required to enable the study to examine the distribution of offences and offenders across very small areas so as to identify if offenders concentrate in such areas. Digital data provided by the NSO is readily available unlike the crime data. Police Annual Reports and arrest data are not made available to the public and were not used for this study. Also, the Formosa digital database and convictions data in analogue form are stored in vaults within the walls of the Corradino Correctional Facility (CCF) and access to the setting has to be approved by the Director of Prisons. In turn, the welfare data is a source for the social records such as unemployment benefits issued on an annual basis being the only income for those registered as unemployed. The links between the different datasets will ensure the study of the relationships between the offender, the offence and poverty hotspots and in turn how they relate to the intergenerational component.

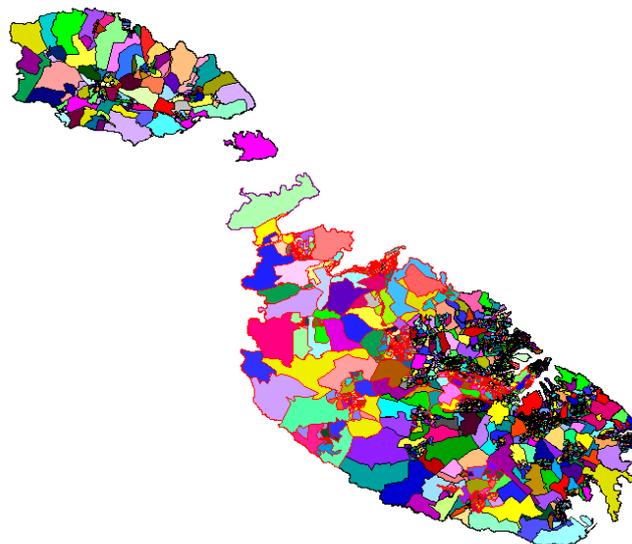


Figure 5.12: Census Enumeration Areas Map (Source: Formosa, 2007)

¹⁰¹ NSO, Malta: <http://www.nso.gov.mt>

¹⁰² NUTS 5 (Nomenclature of Territorial Units for Statistics Level 5) is a EUROSTAT local government classification, in Malta known as the local councils level. The Maltese Islands have 68 such local councils. NUTS 5 is also designated as LAU2 (Local Administrative Units Level 2).

5.5.2 *The reliability of data*

The intergenerational database was inputted manually on computer and this was checked for inconsistencies. The use of running records¹⁰³ such as the welfare data and census data provided a reliable source of socio-economic and demographic contextual data. Examination of neighbourhoods in terms of poverty and crime hotspots facilitated spatial analysis to compare relationships between these. However, the relationship between the characteristics of the geographic area based on aggregate data and the individuals' data is deemed as indirect. One cannot draw inferences and conclusions about individuals based on aggregate data so as to counteract for ecological fallacy. The 2000s time frame was chosen for the welfare and census data to ensure consistency of data available as census data prior to 1995 is not available in public documentation.

In order to ensure reliability of data, the quantitative data analysis includes information of relatives traced in yellow files. It is quite unlikely for an inmate to provide incorrect information on relatives. Information about school background, residential location and employment record is based on information given by each inmate and thus could include incorrect/inaccurate information. Moreover, any form of prison leave related to family occasions, contacts and compassionate leave is approved on the basis of relatives declared on registration (Figure 5.7). This information could be amended within a stipulated period from admission. In addition, such information could not be cross-checked due to restrictions imposed by the Data Protection Act.

5.5.3 *Limitations of the Research Design*

Archival records suffer from two particular biases; selective deposit¹⁰⁴ and selective survival¹⁰⁵ (Webb, Campbell, Schwartz, Sechrest & Grove, 1981). Selective deposit in this Malta study could have been the result of editing and alteration of records before the final publishing of records. Considering that the study covers a sixty year period, a significant number of persons were involved in inputting inmates' information in ledgers, files and questionnaires. Thus the

¹⁰³ Running records are records that are continuously updated; such as records are kept and updated by government agencies.

¹⁰⁴ Refers to the editing of content.

¹⁰⁵ Artefacts survive if they are consumed through repeated use.

author was not aware of any existence of such bias. However, to counteract for the possibility of such a bias, the author took into account only those family members whose physical files were available in the prison vaults and consequently the claimed relationship was cross-checked. The issue of selective survival is related to the fact that some records were either incomplete or had missing information and this turned out to be inevitable. In most research relying on archival data it is quite common that the style of record keeping changes over time. Interestingly, the questionnaire's content has not changed over the decades since the 1950s as per ledgers in the national archives. It is at the discretion of the official/s involved in the registration of an inmate at CCF to compile the questionnaire (Figure 5.7).

A number of other limitations do prevail such as comparison with the general non-imprisoned Maltese families, which was not feasible in the absence of a prospective longitudinal design. Such a comparison would have helped one to look at the influences rooted in the mechanisms associated with presence or absence of intergenerational transmission. Also the pre 1950s data is not available on a database and a number of "old" files have deteriorated physically on storage. On the other hand, variable and cross-variable analysis was restricted by the data available on the Formosa and Intergenerational datasets. Examples include missing data on the literacy background of inmates in the physical ledgers which subsequently resulted missing in the Formosa database and data missing of 223 individual inmates who form part of the intergenerational cohort. In some cases the registered person indicated in the questionnaire that s/he had had a relative in prison but the physical files were not sourced either because the physical files could not be found or had deteriorated. With regards to the creation of family trees on few occasions it turned out to be too complicated to decipher the relationship between different offenders and relatives. In addition, spatial analysis based on the residential location was limited by the fact that the identification of the address location had to appear in the conviction ticket.

On the other hand the use of semi-structured interviews (Farrington et al., 2009; Thornberry et al., 2003) as a qualitative research tool with offenders belonging to crime families would have filled in the gaps identified in the quantitative exercise. Also, a combination of quantitative and qualitative designs is in line with most criminological research to date (Hughes, 2013). This said, the use of interviews with inmates belonging to crime families to focus on the perception of offenders on risks to crime continuity was in the original plans and ethical approval was sought for and granted by SREP. However, a decision was taken not to interview inmates belonging to crime families since the author was recently appointed to serve as a

member on the Prison Leave Advisory Board¹⁰⁶. In other words, conducting interviews with inmates could have jeopardised the author's role at CCF.

The variable (literacy) contained several instances of missing data, particularly that pertaining to the intergenerational cohort, where from a total of 1,017 individuals with no information about their literacy background, 661 belong to the intergenerational cohort as compared to the 356 belonging to the non-family component. This could be due to the fact that on entry to CCF, the registry omitted asking this question many a time assuming that all were to a certain extent literate. On the other hand, addresses of 1,113 from 1,586 (number of individuals in the intergenerational cohort accounted for in the quantitative analysis) were mapped since 473 addresses were either missing or inmates did not indicate a fixed address on registration. Other missing data is related to school type attended, with information for 2,457 individuals not accounted for. This represents almost half of the general prison population whilst it is to be noted that the highest portion of missing data is for the non-family component for this variable (school type). The cross comparison with other socio-demographic information available in the wider population that includes poverty using Welfare benefits data¹⁰⁷ and Census data (2000s) to acquire information at local council level. Ideally the same years of data coverage should have been employed, however it was not possible because it would have required use of extensive datasets which were not necessarily consistent or available.

The following pivot table (Table 5.4) provides a summary of the data available for each variable used for the analysis. Thus it also highlights the missing data for each respective variable.

¹⁰⁶ This board processes inmates applications related to requests for some sort of prison leave during their incarceration at CCF. Appointment dates to the 11th December 2013.

¹⁰⁷ This data set includes all the persons who partake to unemployment benefits which is an indicator for poverty.

Table 5.4: List of Variables used for analysis

Variable	Description	Valid	Missing
V0_Unique_Seq	Unique sequential number for every incarceration	10888	0
V1_Sex	Sex of offender	10888	0
V2_Sent_Category	Type of sentence (long-term, short-term)	10771	117
V3_SF_Code	Individual offender code as per Formosa database	10888	0
V3ii_SF_Code_indiv	Individual offender code for first instance (incarceration)	5093	5795
V4a_Sentence_Date	Date of sentence	10875	13
V4i_Sentence_Year	Year of sentence	10688	200
V4ii_Decade_Sentence	Decade of sentence	10640	248
V5i_Offence	All Offences	10646	242
V5ii_Offence_Main_Group_Offence	Offence main categories as listed by the Malta Police	10646	242
V5iii_Offence_Sub_Group_Offence	Offence sub-categories as listed by the Malta Police	10646	242
V6i_Sentence_Days	Sentence/s converted to days	10293	595
V6ii_Sentence_Years	Sentence/s converted to years	10293	595
V7i_Release_Year	Year of release	9426	1462
V7ii_Release_Decade	Decade of release	9392	1496
V8i_Recidivist_First time	Entry category (first time or recidivist)	10322	566
V8ii_Recidivism Times	Number of re-convictions	6854	4034
V8iii_Recd_ExApse	Previously sentenced under the Approved School Act (under age prison)	203	10685
V9i_Age_Years	Age in years	10755	133
V9ii_Age_Cohorts	Age ordered by 5-year cohorts	10755	133
V10i_Employment	Employment type	10197	691
V10ii_ISCO_Main	Employment type by ISCO codes	10197	691
V11_Residence	Locality of residence	10520	368
V12_Marital Status	Marital status	10336	552

Variable	Description	Valid	Missing
V13i_Number of children	Number of children	4432	6456
V13ii_Child cohorts	Number of children ordered by cohorts	4432	6456
V14_Literacy	Literacy type (literate; illiterate; semi-literate)	8783	2105
V15_School_Type	Category of school attended	5973	4915
V16_JFP_Rowid	Researcher's unique sequential code for the Intergenerational database	10882	6
V17i_Family	Membership in Intergenerational cohort or Non-Family component	10888	0
V17ii_Relationships	Relationship description (actual relationship; example father-son)	3975	6913
V17iib_Relationship_Direction	Relationship Direction (horizontal; vertical or both)	3950	6938
V17iii_Siblings	Siblings presence in crime families	2792	8096
V17iv_Parental	Parental presence in crime families	2132	8756
V17v_Spouses	Spouses presence in crime families	744	10144
V18i_ig_no_individual_instance	Family tree number – unique instance (incarceration) for every offender	1586	9302
V18ii_ig_no_all_instances	Identification of incarcerations served by intergenerational offenders sorted by Family tree number: all offences (incarcerations)	3975	6913
V18iii_ig_indiv	The unique intergenerational offender	1586	9302
V18iv_ig_all	Incarcerations served by intergenerational offenders	3975	6913
V19i_Nodes	Number of nodes	3975	6913
V19ii_Gs	Number of generations	3975	6913
V20i_Co-Offender Code	Presence of co-offending	1811	9077
V20ii_Partners_In_Crime_V0_Code	Identification of co-offending partners	1811	9077
V20iii_No_of_Co_offending_Partners	Number of co-offenders (2 partner-category etc)	1811	9077
V20iv_IG_Co_offending_Partners	Family (ig_no) to identify number of co-offenders within the same crime family	1081	9807
V20v_Co_offending_Partners_Same_IG_Family	Number of related co-offenders as partners in crime	187	10701
V20vi_Co_offending_Family_members_in_partnership	Number of intergenerational inmates who committed a co-	1081	9807

Variable	Description	Valid	Missing
	offending activity either with a non-related inmate or a related inmate		
V20vii_Co_offending_Non_Family_members_in_partnership	Number of non-family inmates who committed a co-offending activity either with an intergenerational inmate or an inmate belonging to the non-family component	1474	9414
V21_STR_ID	Street code	10888	0
V22_NNH2_Poverty_Hotspot_Residence	Family members residing in poverty hotspots at Nearest Neighbour Hierarchical clustering level 2	777	10111
V23_NNH2_Offender_Hotspots	Family members residing in an offender residence hotspots at Nearest Neighbour Hierarchical clustering level 2	427	10461
V24_NNH1_Poverty_Hotspot_Residence	Family members residing in poverty hotspots at Nearest Neighbour Hierarchical clustering level 1	528	10360
V25_NNH1_Offender_Hotspots	Family members residing in an offender residence hotspots at Nearest Neighbour Hierarchical clustering level 1	311	10577
V26_NNH1_Offender_Hotspots	Family members residing in both poverty and offender residence hotspots at Nearest Neighbour Hierarchical clustering level 1	170	10718

5.6 Analysis of the data

The quantitative analysis of the variables and the eventual running of queries to explore the research questions is based on data available in the two data sets which excludes those individuals who, although had been mentioned by a relative in the questionnaire but whose physical files were not traced or had deteriorated and thus could not be included in the statistical analysis. A fundamental decision that had to be taken about the analytical process related to whether to include data from all conviction tickets or to use one conviction ticket representing the individual inmate. Queries directly related to offences, offence type, recidivism¹⁰⁸, sentence length and co-offending¹⁰⁹ included data from all conviction tickets served by each individual offender. Such a decision was taken so as to capture to the full the offending patterns

¹⁰⁸ Recidivism is measured in terms of re-convictions.

¹⁰⁹ Two individuals or more awarded a conviction ticket resulting into a prison term, for the same crime on same day as per court delivering sentence.

of the whole imprisoned population irrespective of the cohort the individual belongs to. The analysis of variables such as age and sex, employment, education and residence location included data taken from one conviction ticket representing the individual inmate. The first conviction ticket that appears as per sorting by SF code (attribute 3: Table 5.4) for each offender was accounted for representing data of the individual inmate.

Other important decisions were taken related to the categories to be used for offence analysis. The offences listed in the database were classified into two offence categories used by Formosa (2007); also such an exercise was used to set the foundations for analysis as well as to facilitate interpretation of findings through analysis from the amalgamation of the two data sets employed in this Malta study. Offences were grouped into a classification distinguishing between the “main group” which is the primary classification used when analysing offences and the “sub-category offence” (Refer to Appendix 2) which was used mainly to provide more in-depth information of respective offences grouped in a sub-category which together constituted a main one. The “main group” offences category is used to identify the highest offence rates as otherwise the small numbers as listed in each of the sub-categories would render the exercise futile. On the other hand, the sub-category offence category is used and needed for in depth analysis since the “main group” category could be at times generic a case in point is the category “Other” which symbolises a series of offences grouped into one category with details of each offence outlined through subcategories. However to counteract this, the main group category “Other” was presented in the findings by four specific categories including; other-justice, other-state, other-health, and other-sentiment, and the other-all others (includes other-creatures, other-sports, other-educational, other-financial and other-transport) to give a clearer picture of this crime category.

Malta has experienced social change during the period under study, consequently legislation and enforcement experienced updating to reflect the relative change. New categories of crimes were included to reflect new developments such as the introduction of the internet and the opportunity it offered potential offenders to commit crime. The new categories included online fraud, distribution of pornographic material and harassment amongst other offences. Also, other crimes such as domestic violence were extracted from their position as a sub-category within the bodily harm main category and were given a status as a main category. This attests to societal awareness and the drive to recognise domestic violence as a serious phenomenon besides the need for mitigation and protection of the relative victim.

Throughout the years other crime categories were either removed from the categorisation or ignored by enforcement officers. Such included offences related to blasphemy (related to the confessionalist period where the church held control over the governing bodies), the throwing of water in the streets (related to health and the reduction of disease) and having a gate that opens onto the street (a remnant of the colonial period where such gates were deemed as obstructing the Queen's Highway), amongst other offences. Interestingly, with the growth of environmental awareness, offences related to littering have been reactivated through the introduction of environmental wardens in the late 2000s.

The two types of offence categories (main group and sub-category offence) were included in this study as they occurred during the different earlier periods and the later decades of the study which witnessed the introduction of new offences. It is to be noted that the categorisation of the offences employed in analysing offences in this thesis is based on the Police Incident Reporting System (PIRS) administered by the Malta Police that classifies offences as based on national laws and which categories are used to prosecute suspects. These categories are also used to register incarcerated persons on entry to CCF. This study employed PIRS as the basis for the thematic analysis and maintained the structure since the operational use of the thesis outcome would reflect the realities as seen by fieldworkers and their awareness of the same categorisations. In this scenario, take-up of the findings would reflect the legislation and its implementation.

The offences categorisations were elicited from the Maltese Criminal Code (Chapter 9 originally drafted legislated upon on the 30th January 1854, amended over many times, with twenty such amendments occurring between 2000 and 2015 (Criminal Code, 2015). The criminal code pertains to two books on penal laws and the laws of criminal procedure. The book focusing to the penal laws is subdivided into Parts pertaining to the following:

Part I: “of punishments and general rules for their application, of the will and age of the offender, of attempted offence, of accomplices and of recidivists”, which defines the meting out of punishments, the age of criminal liability, the phenomenon of attempted offences and recidivism;

Part II: “of crimes and punishments” defines the different crime sections where each crime section is further subdivided into constituent main categories and the subsequent sub-categories. Some examples of sections include those related to “genocide”, “crimes against humanity and war crimes”, “crimes against public peace”, “crimes against administration of

justice and public administration” and “crimes against the person” amongst other offences. The sections are then divided into a number of main categories. As an example, the section entitled “of crimes against property and public safety” (Criminal Code, 2015, p. 3) is split into the main categories of:

- i) “Theft”;
- ii) “of other offences relating to the unlawful acquisition and possession of property”;
- iii) “of fraud”;
- iv) “of crimes against public safety and of injury to property”;
- v) “of acts of terrorism, funding of terrorism and ancillary offences”;
- vi) “of piracy”;
- vii) “of computer misuse”.

These offences are then subdivided into sub-categories such as the case where the main category of theft has “of aggravated theft” and “of simple theft” as its sub-categories. Each of these is then defined such that the term “aggravated” for example is defined by violence, means, amount, person, place, time and nature of the stolen goods. Each of these terms is defined by law in each of the Articles within the criminal code.

Another section entitled “of crimes effecting the good order of families” was sub-divided into “of crimes relating to the reciprocal duties of the members of a family”, “of crimes against the peace and honour of families and against morals” as well as “of crimes tending to prevent or destroy the proof of the status of a child”. Whilst these offences may appear as archaic or outdated, it is interesting to note that some offences such as “failed to pay surety to his wife” are still enforced since a separated spouse and her children might be at risk of poverty. People were interned at CCF as recent as in the 2000s for failing to affect such payment.

In summary, this study looked at these offence categories as they are employed throughout the Maltese criminal justice system, from the policing aspect to the prosecution, through sentencing and incarceration. The study was loyal to these categories as they are also employed in the reporting of offences to the different international agencies such as the Europol, Interpol and the United Nations Office on Drugs and Crime (UNDoC). Thus whilst they do pertain to

the Maltese context, the categories relate to those found in other countries in terms of definition and can be cross-analysed across the different states.

5.6.1 *Categorisation of the trees*

The *trees* were individually checked and a set of categories were created based on the number of individuals (incarcerated persons) that could be found in such a *tree* and identified in the Registration Questionnaire (Figure 5.7). The main categories were based on the number of nodes (persons) and branches (relationships), a structure created for this study (refer to Chapter 7). In effect, these *trees* resulted in varying structures such as (example 3 nodes / 2 branches) a vertical intergenerational structure (Figure 5.13a) or a horizontal single generation structure (Figure 5.13b) or a multi-dimension vertical and horizontal structure (Figure 5.13c). A generation is represented by the symbol G.

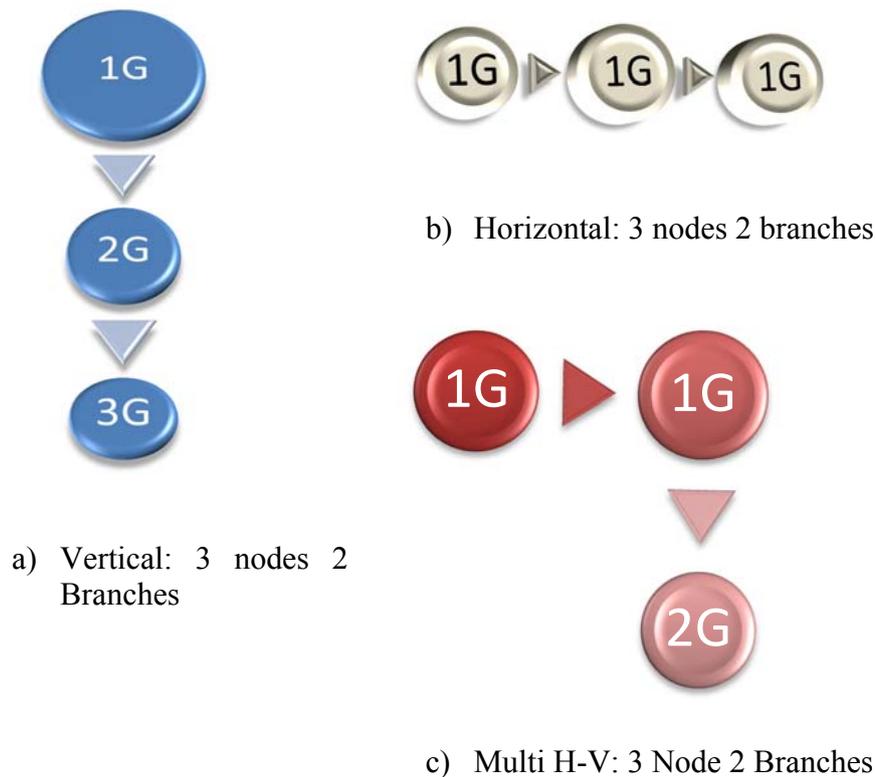


Figure 5.13: The different types of *trees*

5.6.2 Aggregation of the Trees

The process here entailed the aggregation of those *trees* that have common offenders between them, in turn resulting into larger structures. As the study progressed, the latter became more common than was originally expected as based on the input phase. Each link was analysed and the new *tree* was clarified and verified once more to ensure error reduction, particularly where such cross-checking identified double inputs. In some circumstances an individual may appear in one *tree* having a specific relationship and in another *tree* having another relationship: example as a son/daughter in one *tree* and as a spouse/partner in another and/or when siblings marry into different *trees*. In such cases the *trees* were amalgamated due to this relationship, consequently an inmate appears once in a *tree*.

The *trees* were individually mapped and rechecked to ensure data cleaning and integrity. A set of categories was subsequently created based on the number of individuals (incarcerated persons) that could be found in such a *tree*. The categories were based on the creation of a Nodes and Branches structure, where a number of nodes (incarcerated persons) and branches direction (Horizontal Vertical relationships) are identified in each *tree*. This structure resulted in varying structures such as a vertical intergenerational structure (minimum of 2 nodes and 1 branch: father/son – 1 vertical link) or a horizontal single generation structure (2 nodes / 1 branches: 2 brothers-1 horizontal link) or a multi-dimension vertical and horizontal structure (10 nodes / 15 branches: grandfather, uncles, cousins of uncles, nephews, and children of nephews - Multiple links).

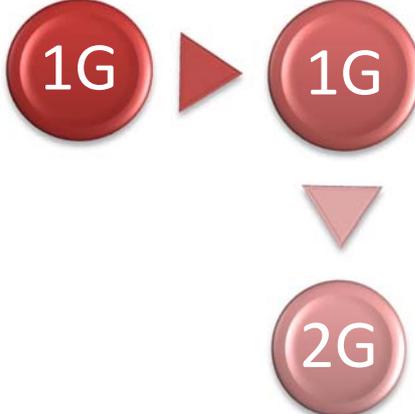
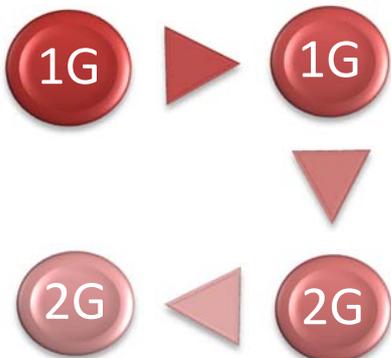
Figure 5.14a depicts the initial base structures, as identified in the study process, within a Vertical structure. Figure 5.14b depicts the horizontal base structures, whilst Figure 5.14c depicts the multiple dimension (Horizontal-Vertical) structure. The structures presented in the figures below will help the reader to visualise graphically the setup of the crime families and in no way point towards aetiology or either causality of continuity in offending. This mapping exercise catered for a graphical explanation of the crime families but also facilitated the fusion of families to form larger structures representing a blend of relationships inclusive of restricted and extended family members.

Structure: Direction (Nodes and Branches)	Structure Depiction
<p>Vertical - 2 Nodes 1 Branch</p> <p>Example: Father – Son</p> <p>2 Generations (2G)</p>	
<p>Vertical - 3 Nodes 2 Branches</p> <p>Example: Grandfather - Father – Son</p> <p>3 Generations (3G)</p>	
<p>Vertical - 2 Nodes 2 Branches</p> <p>Example: Grandfather – Non-Offending Father – Grandson</p> <p>2 Generations (2G) (composed of 1G and 3G)</p>	

Figure 5.14a: The Vertical structures: Initial levels

Structure: Direction (Nodes and Branches)	Structure Depiction
<p>Horizontal - 2 Nodes 1 Branch</p> <p>Example: Sibling – Sibling Cousin – Cousin Spouse – Spouse In-law – In-law</p> <p>1 Generation (1G)</p>	

Figure 5.14b: The Horizontal Structure: Initial levels

Structure: Direction (Nodes and Branches)	Structure Depiction
<p>Vertical-Horizontal - 3 Nodes 2 Branches</p> <p>Example: Father – Mother - Son</p> <p>2 Generations (2G)</p>	
<p>Vertical-Horizontal - 4 Nodes 3 Branches</p> <p>Example: Father – Mother – Son – Spouse of Son</p> <p>2 Generations (2G)</p>	

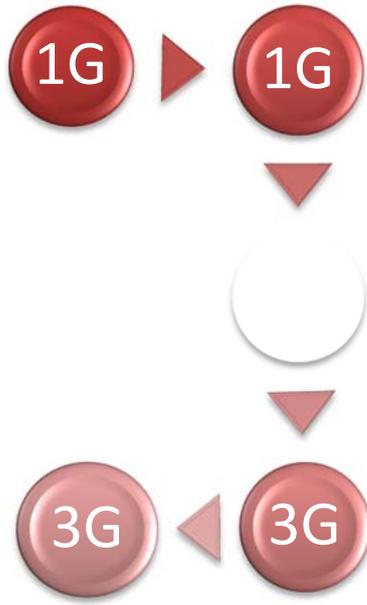
Structure: Direction (Nodes and Branches)	Structure Depiction
<p>Vertical-Horizontal - 4 Nodes 2 Branches</p> <p>Example: Grandfather & Grandmother (spouses) - Non-Offending Father - Grandson & Grandson's Spouse</p> <p>Composed of 1G and 3G</p>	 <p>The diagram illustrates a vertical-horizontal structure with four nodes. At the top, there are two red circular nodes labeled '1G'. A red arrow points from the left '1G' node to the right '1G' node. Below the right '1G' node is a white circular node, with a red arrow pointing down from the '1G' node to it. Below the white node is another red circular node labeled '3G', with a red arrow pointing down from the white node to it. At the bottom, there are two red circular nodes labeled '3G'. A red arrow points from the right '3G' node to the left '3G' node.</p>

Figure 5.14c: The Multi-Dimension Vertical-Horizontal Structure: Initial levels

The following sub-section overviews the tools employed for the analysis of variables from the intergenerational database inclusive of the spatial tools employed in exploring the distribution of offenders over identified poverty and offender hotspots.

5.6.3 Tools employed for the analysis of data

1) Microsoft Access

Queries (using Microsoft Access) based on the name of the person were run and for every name linked from the Excel output and the CCF database, the relative SF_Code was generated. This series of queries was refined until all the persons listed were tagged with a SF_Code. Such was not a simple exercise since the dataset contained its own errors which were cleaned through this process. The final result was verified and the relative SF_Code was extracted for referencing to the Formosa dataset. Those that were listed were given a relative unique attribute value entitled JFP_Code. The latter code was the one left in the final JFP dataset once the linkages to the Formosa dataset were concluded and from which dataset the required attributes

were extracted for analytical processing. This tool has helped in a rapid cross-system data querying.

2) SPSS

The statistical tool, SPSS was used to analyse the different variables, produce frequency counts of each variable and to explore relationships between them. The latter involved conducting bi-variate correlation analysis between the conviction offence and individual characteristics such as age, literacy, educational attainment. In summary, this tool enabled the verification of data as well as helped the researcher to aggregate the different datasets as well as enable the processing of the queries as required for the investigation of the different parameters identified for the different research questions. SPSS was the main tool employed to analyse the cross-variable relationships which, though possible in such tools as Excel, are specifically dedicated to statistical analysis. The versatility of the tool and its acceptance of data from the other tools such as Excel and GIS helped to integrate the different datasets and enabled the investigation of correlations, where applicable. The Conjunctive Analysis of Case Configurations (Miethe, Hart & Regoeczi, 2008) was employed to carry out where possible multivariate analysis of crime attributes related to studying seriousness of offending. This is considered as “an alternative technique for exploring causal relationships among categorical variables” (Miethe et al., 2008, p.228).

3) Geographical Information Systems

Geographical Information Systems (Mapinfo and ArcGIS), were employed to check whether there was any relationship between the poverty hotspots, the residential hotspots identified by the Formosa (2007) study and the aggregation of the offenders in crime families. These were carried out at NNH1 level of analysis. This method has its limitations such as a number of data points are needed to be able to form a cluster. The programme CrimeStatIII developed by Levine and Associates was employed for the mapping of offender residence locations on the identified offender-residence and poverty hotspots (Levine, 2002). This spatial statistical tool interfaces with GIS programmes. Incident locations, in this case the address of an individual

offender were inputted as “shp¹¹⁰” after being converted from dbf/excel. The process involves spatial calculations and rendering of graphics for GIS (mainly Mapinfo and ArcGIS). This exercise caters for “hot spot” analysis and hotspots are presented as ellipses. GIS tools as used in this study, particularly MapInfo and CrimeStatIII enabled the creation of maps that depict relationships through spatial statistics. Such was not possible through non-spatial software and the results depict a new perspective to relationships, especially where two different datasets result in inter-theme correlation such as poverty and crime.

4) Risk assessment tool

In order to understand whether certain areas comprise higher rates of offenders than other, such a higher concentrations of offenders living in very small areas, a tool was required, which would help one to create a risk level. This process was achieved through a method created by Craglia et al. (2000) and as employed in the Formosa (2007) study. This exercise is based on a process where the national rate of an activity (whether number of offenders living in a street or zone, number of offences occurring in an area, etc.) is acquired as based on a common denominator. Thus, if the number of offences in Malta registered 400 in a year where the population is of 400,000, then the national rate would be that of 1:1000 or a risk of 1 crime per thousand persons. Thus would translate to 10 expected crimes on a town of 10,000 persons. However, in the latter town, 100 offences were registered, which means that the risk for that town stands at 10 times the national rate. As the model places all towns on the same level, and types of variable can be analysed as long as the denominator is common (whether area of the zones under study, population etc.). In this study the zones, were analysed to test for the number of offenders living in the smallest possible zones (NUTS 5 level) which gauged the expected number of offenders residing in that zone. If the observed numbers were larger than the risk assessment renders the relative rate higher than the national norm or smaller should the number of observed offenders be small.

Craglia et al. (2000) used this tool for epidemiological and demographic studies through which one gets a comprehensive representation of risk in a relatively small area (town). In this study, this tool was deemed useful to understand the potential concentration of crime families in the different localities that constitute the islands.

¹¹⁰ Shape file.

5.7 Ethical Issues

The study entailed the employment of adequate and discrete record keeping through taking all the necessary steps and security measures to preserve confidentiality of information and identity of inmates (British Psychological Society, 1997). Names of inmates were coded so that their identity was concealed. This was carried out in line with the eighty year moratorium regulations and the Data Protection Act. Also, the information generated in the data sets does not reveal or provide personal information on the identity of “participants” (inmates interned at CCF between 1950 and 2010). It is to be noted that this is a very salient characteristic of the study in view of the fact that the country is small and the prison population is even smaller.

Informed consent from inmates could not be requested for since the data goes back to 1950s (Phase 1). However, informed consent was granted by DCCF to access archival data of individual inmates’ files. Also, research involving special populations such as inmates raises special concerns about confidentiality and protection of identity. In order to counteract any potential problems a very rigorous procedure was adopted. In summary, the categorisation and mapping of *family trees* and the use of vignettes to inject a biographical approach to the individuals belonging to their respective crime families does in no way render the individual inmate nor the crime family identifiable.

5.8 Conclusion

The methodology used in this study employs a triangulation approach through quantitative analysis and the use of spatial tools for visual inspections. In addition, it injects a “family tree” structures representing association of convictions between family members. The family *trees* also depict the type of restricted and/or extended relationships between individuals belonging to a crime family which sets the groundwork for studying familial relationships in association to crime prevalence, crime patterns and seriousness of offending. The methodological design adopted was influenced by the dearth of data particularly since no longitudinal designs, whether prospective and/or retrospective, have been carried out to date and also due to the absence of a criminal career database. The limitations of the methodological design were also considered and summarised.

The three research phases discussed in this chapter outline the methodological steps employed for this Malta study which aimed to explore the intergenerational transmission of crime. Each

phase delved into the three research objectives respectively, where through these research objectives, five research questions evolved. The latter outlined the research rationale employed for the investigation of crime continuity in a country where family life, culture, geographic and socio-economic constructs could act as potential crime promoters.

A review of the available local data was given, which highlighted that the data gathering process covering all conviction tickets representing the incarcerated Maltese cohort (sentenced and awaiting trial at CCF) over a sixty year period was a long meticulous exercise peppered with challenges that in turn safeguarded data reliability. The procedure delineating how different databases were used conjunctively was also covered. A discussion of the methodological process taken up in each research phase, the tools used and a description of the ethical guidelines adhered to was presented.

The following chapter reviews the findings pertaining to the first objective of this Malta study, which takes on investigating whether family lives are linked through crime and examines the crime patterns of individuals belonging to crime families in comparison to inmates with no relatives interned at CCF.

Chapter 6: Profile of Intergenerational Offending in Malta

6.1 Introduction

This chapter investigates the first research question, which aims to explore the presence or absence of intergenerational continuity in offending in Malta. This chapter begins with an overview of the general prison population to examine by decade the number of convictions served at CCF. This sets the context for understanding convictions of Maltese nationals between 1950 and 2010. This is supported by a discussion which presents the composition of the general prison population distinguishing between those inmates who have had familial links (intergenerational cohort) and those with no familial links (non-family component). This analysis of the general prison population facilitates the identification of “crime families”. Also, this investigation helps the reader understand whether crime persists across generations of families and whether lives are linked through crime. This first section of this chapter provides the groundwork for a closer investigation of the crime patterns of the intergenerational cohort which will be reviewed in the second and third section of the chapter.

The second section of the chapter focuses on the analysis of convictions, on recidivism (re-convictions) and co-offending. This is intended to investigate whether crime concentrates in a small number of families. Throughout this process, the similarities/differences between the general prison population, the non-family component and the intergenerational cohort are highlighted. The non-family component serves as a main comparison group in the absence of a control group since a wider comparison with the population of the Maltese Islands was not possible due to lack of available data due to the absence of longitudinal studies.

The third section of the chapter highlights the offending patterns of the respective cohorts particularly focusing on the convictions served by individuals belonging to the intergenerational cohort. The seriousness of convictions served at CCF is examined by investigating the number of days/years through an analysis by length of sentence distinguishing between cohorts. In other words, sentence duration serves as a proxy for seriousness of the offences. Also, the analysis of the number of generations representing offence transmissions in crime families highlights the number of generations representing continuity of offending. This exercise studies the number of generations in the family structures represented by Gs vis-

a-vis the number of convictions served by those belonging to the intergenerational cohort. The latter two sections aim at identifying potential crime patterns in crime families.

6.1.1 The General Prison Population: An Overview of the whole parameter of Maltese inmates between 1950 and 2010

This section presents an overview of the prison population over the sixty year period which represents the whole population of incarcerated Maltese nationals at CCF from which those individuals related to one another are identified; the intergenerational cohort. The focus here is to identify the total number of individuals interned at CCF; the total number of convictions served at CCF including sentenced and awaiting trial and the type of offences for which offenders were given prison terms.

Between 1950 and 2010, a total of 5093 individuals received conviction tickets which registered their admission to CCF; these were convicted for a total of 10,888 (Table 6.1) offences. The number of convictions (Table 6.1) as well as the number of inmates at CCF (Table 6.2) decreased from 1960 to 1989. By contrast, in the following two decades the number of convictions as well as the general prison population increased. It is to be noted that those awaiting trial (234 inmates awaiting trial for 248 convictions) are included in the study. However, since a sentence was not delivered they could not fit in any of the decades outlined in Tables 6.1 and 6.2.

The number of inmates between 1950 and 1959 (Table 6.2) was historically high with a significant number of crimes for which a prison sentence was awarded being attributable to military personnel-related offences during the period in which Malta served as a military base for the British. The prison population decreased by around 44% during the 1960s compared with the previous decade from a high 1,274 to 717, respectively. The 44% decrease could be explained in terms of the number of emigrants, mostly youths in search of job opportunities and a better standard of living outside the Maltese islands which were badly hit by socio-economic crisis and poverty during the post-war period. The number of inmates continued to decrease until the 1980-1989 period which contrasts with the figures of reported crimes received by the police which increased continuously during the same decades. However, an increase in inmates at CCF was marked since 1990. The increased number of inmates reflects

the increase of reported offences to the police with the emergence of crimes such as drug related offences but also indicates that more offenders have been caught across the decades.

Table 6.1: Convictions for the general prison population by decade

Number of convictions committed by individual inmates who represent the general prison population by decade								
	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010	AT*	Grand Total
All Offenders	2486	1282	1176	662	1651	3383	248	10888

*AT: Awaiting Trial

Table 6.2: Number of individual inmates by decade

Number of individuals by decade								
	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010	AT*	Grand Total
Total Individuals	1274	717	688	471	731	1718	234	5093

*AT: Awaiting Trial

With the introduction of PIRS¹¹¹ in September 1997, crime reported to the Police in the following years became more specific rather than generic. In addition, police crime categories have changed in 1998 when PIRS was implemented and in 2005 PIRS 2 was updated. Thus at times it could be difficult to compare the different datasets (PIRS) together. To counteract this, the main crime category is considered when analysing and interpreting results. Also, police data prior 1950 was not available.

Table 6.3 summarises the convictions by offence type employing the main crime categories¹¹² for the sixty year period under study. The highest percentage that of 18.2% is related to conversion of fine multa/ammenda and unpaid legal fees to prison days. The offence category “other-justice” represents the non-payment of fines as offenders could refuse to pay fines or fees or were not in a position to affect payment. It is to be noted that conversion of such into

¹¹¹ PIRS stands for Police Incident Reporting System.

¹¹² The categorisation adopted in this study is built on the crime classification created by Formosa in 2007 based on discussions with Malta Police, Malta National Statistics Office and CCF which classification integrated a series of categories from the HMO and the University of Huddersfield Kirklees 4th Crime Audit (Formosa, 2007, Table A3-2 pg 336-377). Refer to Appendix 2.

prison days are likely to be delivered as part of the original sentence and brought up again due to the failure to affect payment. This is followed closely by the 18.1% representing violence against the person mirroring as well trends in crimes reported to the police (PIRS). Theft is the third highest crime (15.7%) followed by robbery (11.3%) and drugs (8.9%). The categorisation of a number of crimes in the category “other” could explain why theft does not stand out in the same way as this type of crime does in the Police reports (PIRS). The category “attempted” includes all those offences that were not concluded in their *Mens Rea* but which were deemed by the courts to constitute grounds for imprisonment. These include aggravated theft, bodily harm, bribery, murder, sexual offence and all categories of theft.

Table 6.3: Crimes by Type using Main Categories of the General Prison Population

Offences: Main_Group Offence – GenPop		
	Frequency	Percent
Other-Justice	1937	18.2
Violence against the person	1923	18.1
Theft	1669	15.7
Robbery	1206	11.3
Drugs	950	8.9
Other-All Other Categories ¹¹³	773	7.3
Other-State	614	5.8
Other-Health	522	4.9
Other-Sentiment	513	4.8
Fraud and forgery	293	2.8
Criminal damage	172	1.6
Burglary	61	0.6
Attempted	13	0.1
Total	10646	100.0
Not-Defined	242	
Grand Total	10888	

Serious offences follow in third and fourth places which depict violence through robbery (11.3%) and drugs (8.9%). These two categories of offences comprise a fifth of all incarcerations between 1950 and 2010, which indicates that the main serious offenders having

¹¹³ Includes crimes other-creatures example animal cruelty; other-sports example corruption of an athlete; other-educational example: absenteeism; other-financial example begging; other-transport example traffic contraventions).

consistent presence across the decades interact with ‘petty theft’ offenders in the same prison setting. Such needs to be further investigated in future research focusing on the dynamics of such interaction within the prison setting as a risk/mediating to the continuity of crime since CCF hosts a mixed-offender setting, where potentially dangerous offenders mix with first time or petty offenders.

The following section explores the first part of research question 1, which examines the potential presence of convictions served by individual inmates at CCF whom are related to other inmates through restricted and/or extended familial links.

6.2 Research Question 1: Part 1

Is there any evidence that offending occurs intergenerationally in the Maltese Islands?

The focus here is to identify the extent to which convictions served at CCF involved inmates belonging to the same family. This quantitative exercise takes into account all convictions of nationals between 1950 and 2010 in order to identify those who have had a relative in prison (intergenerational cohort) and those who did not (non-family component).

6.2.1 The Prison Population at CCF between 1950 and 2010

A total of 5,093 individuals were registered in prison across the sixty year period who had been convicted for committing 10,888 criminal offences. By undertaking a closer examination of these convicted individuals it is possible to distinguish those who belong to a crime family and labelled as the intergenerational cohort and those with no familial connections to other inmate/s thus belonging to the non-family component. Table 6.4 provides an overview of the composition of the prison population divided into the three cohorts by decade.

The intergenerational cohort is represented by 1,809 individuals identified in the registration questionnaire and who were categorised into 622 trees through a mapping exercise carried out to address Research Question 2 (Refer to Chapter 7). However, this figure (1,809) includes also those for whom data was not available for further analysis since they were listed as being relative of offenders but whose physical files were not found. This explains why the total number of individuals belonging to the intergenerational cohort in Table 6.4 is that of 1,586 since 223 individuals are not accounted for in the quantitative analysis.

Table 6.4: Number of individuals (counts) by decade

Number of individuals by decade								
	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010	AT* and Undefined Date	Grand Total
Intergenerational	82	71	140	147	244	720	182	1586
NonFamily Individuals	1192	646	548	324	487	998	52	3507
Total Individuals	1274	717	688	471	731	1718	234	5093

*AT: Awaiting Trial

Figure 6.1 shows interesting trends in the composition of the intergenerational cohort. One in every three persons that is registered at CCF as an inmate has had a relative who also served a prison term over the sixty year period. This is reflected in the 31.1% representing the intergenerational cohort in comparison to the 68.9% with no familial links. Such figures indicate a pronounced presence of crime families. Also, the intergenerational links have featured across all decades, with the first two decades showing the lowest rates which were also constant towards the 1960s. The intergenerational rates increased towards the 1970s and such a rate was consistent towards the 1980s however the 1990s and even more so the 2000s witnessed a pronounced increase. Whereas in the 1950s the gap between the intergenerational and non-family representation was wide with 6.4 % (intergenerational) and 93.6% (non-family), towards the 1970s there was a marked decrease in this gap with the intergenerational element rising to 20.3% and a non-family component falling to 79.7%. This was followed by a sharp decrease which narrowed the gap between the two cohorts towards the 2000s. Such a scenario could be predisposed by a situation that across the six decades the possibility of identifying inmates related by familial links to other inmates at CCF became more probable. Reference is made to those in the awaiting trial (AT) list were still not sentenced and as such could not fit into any decade. However, interestingly, of this group, 77.8% belonged to the intergenerational cohort as compared to the 22.2% with no familial links.

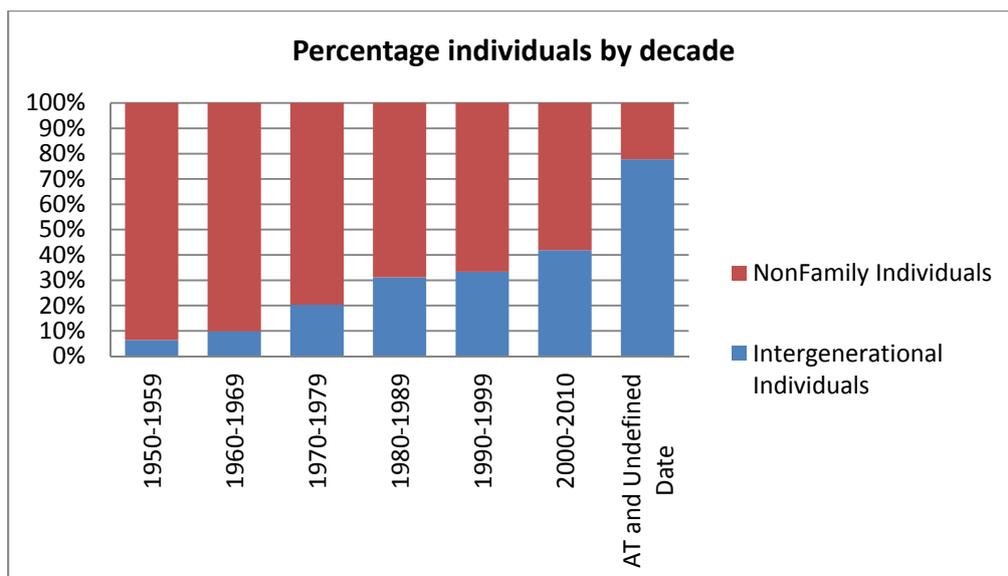


Figure 6.1: Individuals (frequency) by decade

6.2.2 Summary

The quantitative analysis carried out here facilitated the identification of two cohorts that constitute the general prison population; the intergenerational cohort and the non-family component. The exercise employed in the identification of these two cohorts satisfies the objectives set in the first part of Research Question 1. Over time the dataset has provided opportunity for identifying familial links amongst inmates. On the other hand, if one decade had to be included this would have limited the study towards exploring the potential concentration of convictions amongst siblings and thus not accounting for examining the association of convictions across two generations (such as parents and offspring).

Also one in every three registered inmates identified a relative as an inmate at CCF which finding mirrors research claiming that lives are linked (Thornberry et al., 2003) and that antisocial tendencies such as crime runs in families (Blazei et al., 2006; Jacobson et al., 2000; Lussier et al., 2009). However, findings here could also indicate that being a member of a crime family increases the risk of being apprehended as “ill-credit families” are well known in the community and even by the police. Also, convictions served by intergenerational individuals and their crime families accounted for increasing proportions of convictions over time compared with the non-family component. This could be compared to the Ekblom’s (2010) concept “crime promoters” and “crime preventers”. In summary, the family could act as a risk or mediating factor, whereas it might not operate as the major contributor (Bijleveld

& Wijkman, 2009) it could interact with other criminogenic risk factors increasing the probability of crime continuity.

However not all antisocial children grow into antisocial adults (Robins, 1978) since Emirbayer and Mische (1998) define human beings as actors responsible for shaping and moulding one's life even through turning points (Laub & Sampson, 2003). This explains why not all criminal parents bear criminal children which could justify the presence of 68.9% of the Maltese general prison population who belong to the non-family cohort. The following section overviews the number of crimes by comparing the three cohorts followed by a closer look at recidivism and co-offending.

6.3 Research Question 1: Part 2

To what extent is the intergenerational cohort characterised by distinctive patterns of offending?

The analysis pertaining to this part of Research Question 1 is two-fold; aimed at exploring crime patterns specific to cohort affiliation. The discussion presented below sheds light on the nature of offending within families by exploring several related measures including the number of convictions, conviction rates (prevalence), repeat offending (recidivism) and co-offending involving relatives. In summary, the rationale here is to explore whether having a family member partaking to crime posits a transmission risk in continuity of offending. Also, this sets the groundwork for a more in-depth investigation of the intergenerational cohort which follows in Section 6.4.

6.3.1 Crimes as per conviction tickets

The first part of this section covers all convictions committed by the intergenerational cohort and non-family component. However, comparative analysis is carried out also as against the general prison population so as to cover of all offences that have resulted into convictions over the sixty year period. This exercise will quantify the number of crimes per capita distinguishing between crime families and the non-family component so as to establish the rate of convictions for each cohort. This section also focuses on recidivism to analyse even further whether

offending is concentrated in a small number of families. Recidivism is measured in terms of re-convictions that were awarded by a prison term; an individual who has more than one conviction ticket is defined as a recidivist in this study. The second part of this section examines the possibility of co-offending activity distinguishing between two cohorts, the intergenerational cohort and the non-family component. Co-offenders¹¹⁴ were identified through conviction tickets issued for the same crime, on the same day and by the same court delivering the sentence.

6.3.1.1 Crimes and recidivism by cohort analysis.

The findings presented here provide the reader with an overview of the convictions of the intergenerational cohort and non-family component.

Inmates belonging to the intergenerational cohort served 36.5% of all convictions between 1950 and 2010, whilst 63.5% of all convictions were served by inmates belonging to the non-family component. A deeper look at the offences committed by intergenerational and non-family component shows that per capita an individual in the non-family group commits 1.97 crimes as compared to an average of 2.5 of crimes per capita for the individual in the intergenerational cohort. This is evidence of the fact that a relatively small number of individuals in 622 families representing the intergenerational cohort are responsible for the larger share of prison sentences during the sixty year period. The number of convictions symbolising the awaiting trial (AT) or those with undefined data is higher for the intergenerational group and this is rooted in the fact that those on the awaiting trial list are more likely to belong to the intergenerational cohort.

Figure 6.2 presents recidivism trends by comparing the three cohorts. Recidivism is explored through the examination of re-convictions at CCF between 1950¹¹⁵ and 2010. It is noted that one conviction ticket classifies one as “First time” whilst a minimum of two conviction tickets classifies one as “Recidivist”. The intergenerational cohort registers the highest frequency of recidivism with 72.2%, whereas the non-family component registers a 63.2% whilst the whole parameter being the general prison population is noted by 66.2%. Such a scenario sets the

¹¹⁴ Reiss (1988) definition of co-offending is adopted here where co-offending is an act “committed with the simultaneous presence of at least two offenders”.

¹¹⁵ Ledgers date back to the 1800s which implies that any inmate at CCF during the 1950s and who had been imprisoned prior to the 1950s had been categorised as a recidivist in the Formosa database.

context in which a more detailed review of recidivism times is necessary aiming at providing more in-depth information about prospective recidivism patterns of the three cohorts.

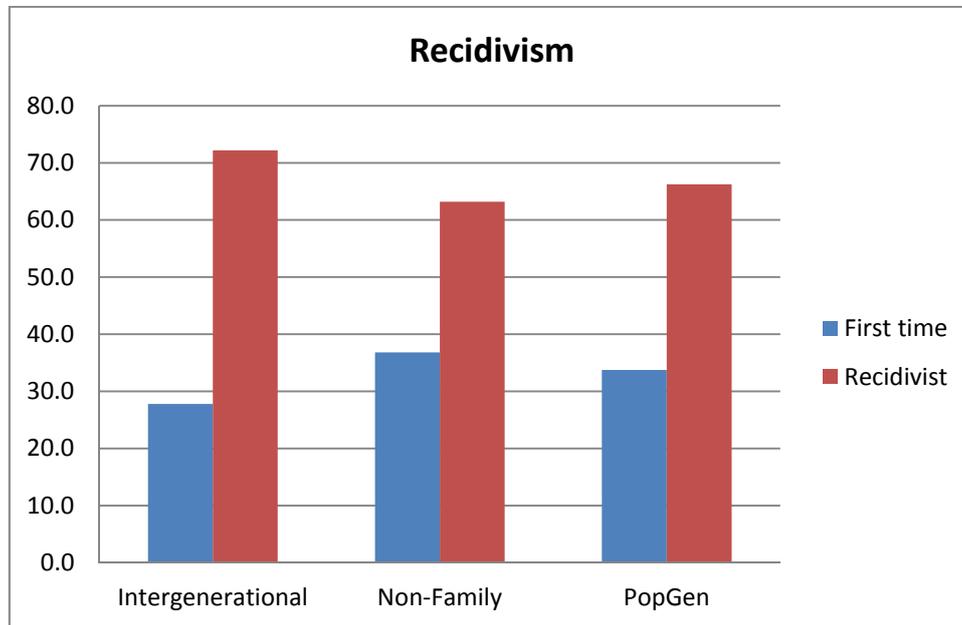


Figure 6.2: Recidivism by Cohort

The categories used to examine recidivism times reflect clusters of conviction tickets served at CCF between 1950 and 2010. This categorisation followed calculations taking into account that the number of conviction tickets served by an individual offender. “Once” represents (i.e. one case of recidivism) two convictions tickets, “two times” (i.e. two cases of recidivism) is served by three convictions whilst “three times” (i.e. three cases of recidivism) represents four convictions. Findings show that “Once” which is more pronounced for the non-family component (Figure 6.3). Interestingly, the frequencies for “4-10 times” and “10+ times” shown in Figure 6.3 indicate that extent of recidivism for the intergenerational cohort when compared to the non-family component. Chi squared test between family status and the number of reconvications yielded $X^2(8, N = 1577) = 38.40, p < .001$ showing a significant relationship between the type of cohort membership and the number of times offenders re-enter (re-convictions) prison.

Findings here point towards a tendency that the individual belonging to the intergenerational cohort is more likely to experience a revolving door situation. Such a situation is linked to and

predisposed by the higher number of crimes per capita committed by the individual in the intergenerational cohort rendering one more crime prolific. This could be explained in view of potential labelling of crime families which process could in turn increase the possibility of being caught by the police. Also, this could be accommodated by aspects in the Maltese islands related to community life and geographical proximity, as “ill-credited families” are well known within their community.

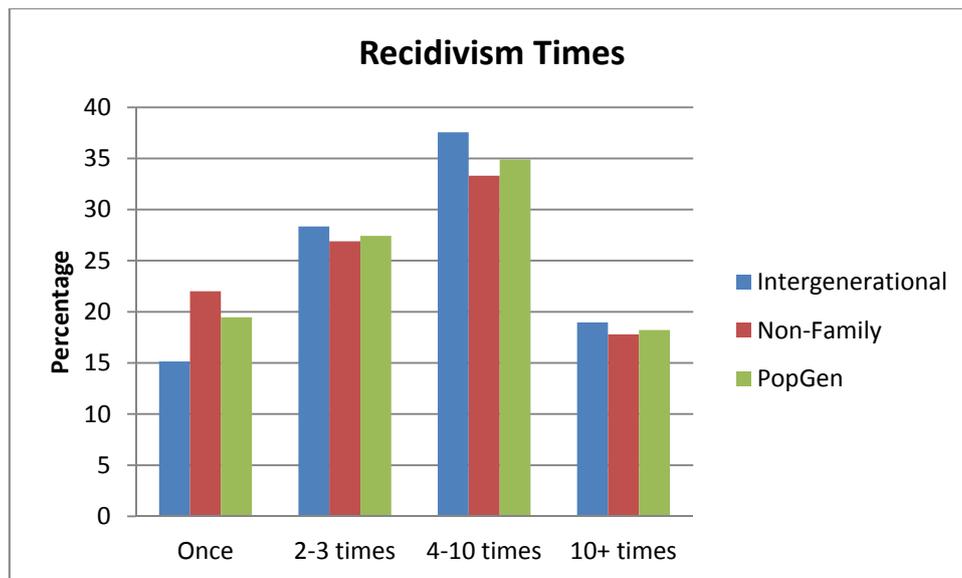


Figure 6.3: Recidivism times by cohort

6.3.2 Co-offending

This section focuses on analysing the co-offending patterns amongst CCF inmates. A total of 1,811 incarceration tickets involved co-offending. Also, 1,444 inmates were involved in co-offending activity (Table 6.5). In comparison to all the convictions, the results show that 16.6% (1,811 of 10,888) of all incarceration tickets are crimes committed by at least two offenders as co-offenders. A closer look at the figures in Table 6.5 shows that in the majority of the cases individuals are involved in one case of co-offending (1,208 occurrences).

Table 6.5: Co-offending Occurrences for the General Prison Population

Count of Co-Offending – GenPop		
No of Co-Offences	Offenders	Occurrences
1	1,208	1,208
2	157	314
3	56	168
4	11	44
5	6	30
6	1	6
7	2	14
8	1	8
9	1	9
10	1	10
Total	1,444	1,811

Further analysis of the number of co-offending partners shows that the largest cases of co-offending criminal activity pertain to the 2-partner category. This could point towards a situation where co-offenders prefer to commit offences with trusted others possibly restricted family members and undoubtedly in smaller group, as larger groups tend to render an offence easier to solve due to the higher number of participants where one may be more ready to ‘confess’ to the authorities or fall out with the partners. Focusing the study on the intergenerational cohort, 38%¹¹⁶ (Figure 6.4) of these are crimes committed by at least two members belonging to the same crime family, whereas 62%¹¹⁷ represent co-offending activity committed by un-related partners belonging to the non-family component. It is noted that the co-offending patterns of the intergenerational cohort are discussed in greater depth in Chapter 7. This aims to study the potential influence of co-offending in intergenerational offending in Malta.

¹¹⁶ This is equivalent to 697 incarceration tickets.

¹¹⁷ This is equivalent to 1,114 incarceration tickets.

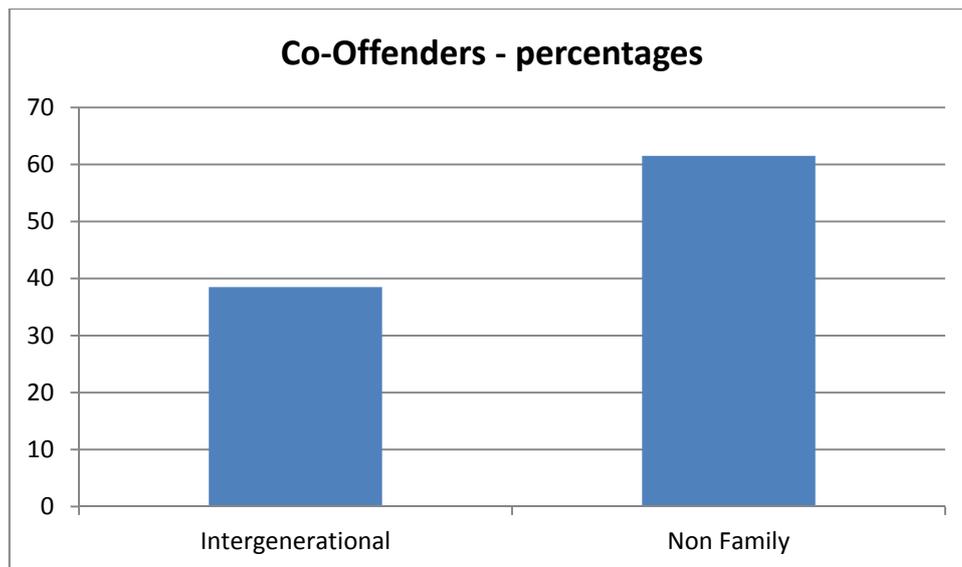


Figure 6.4: Co-offending by cohort

6.3.3 Summary

Following the identification of an intergenerational cohort and a non-family component which together represent the general prison population, the analysis carried out focused on the review of the number of crimes measured by convictions committed by individuals between 1950 and 2010, distinguishing between those who belong to a crime family and those inmates who have no familial ties with other inmates at CCF during the study period. Crime continuity is here also studied through the examination of recidivism rates across the three cohorts. Co-offending patterns of the Maltese inmates were analysed here through the rigorous examination of all convictions committed by the whole population of CCF inmates distinguishing between the non-family component and the intergenerational cohort.

In summary, an individual belonging to a crime family commits more crimes per capita when compared to the number of crimes for the inmate belonging to the non-family cohort (calculated by number of convictions). This finding could be explained in terms of research that claims that crimes (Bijleveld & Farrington, 2009; Dugdale, 1887; Farrington & Welsh, 2007; Farrington et al., 1996, 1998; Hjalmarsson & Lindquist, 2009; McCord 1991, 1999; Rowe & Farrington, 1997; Van de Rakt et al., 2008, 2009, 2010) and convictions (Farrington, et al., 1996, 2009; Rowe & Farrington, 1997) run and concentrate in families. The individual belonging to a crime family is more likely to be a recidivist based on findings related to recidivism frequency and recidivism times, increasing the possibility that the prison population

hosts a concentration of inmates related to one another through familial links. Also, a concentration of related inmates at CCF could serve as catalyst to continuity in offending.

The identification of the intergenerational cohort satisfies the main tenet of Research Question 1. The crime rates and recidivism frequency for the intergenerational cohort classify the individual belonging to this cohort as being more crime prolific which analysis satisfies partially one of the targets of this research question. The findings presented here yield information that allows for a comparative analysis in terms of crime prevalence but since the design adopted here focuses on convictions at CCF and a control group from the general population is not taken such limitations do not allow the researcher to establish the extent of concentration of offending vis-a-vis the realm of crime at a national level inclusive of crimes which were not awarded by a prison term.

The presence of individuals belonging to the intergenerational cohort was noted across all decades. Such findings point towards a scenario in which the accumulation of data and the increased possibility of identifying familial links became more likely from one decade to the next. This said, there are studies that claim a robust intergenerational transmission (e.g. Johnston, 2006) whilst others claim a modest transmission (e.g. Thornberry et al., 2003). Findings here show that in Malta, one in every three inmates registered at CCF has a restricted or extended relationship with another inmate which figures confirm that the phenomenon of intergenerational continuity exists. In other words, the analysis carried out here satisfies the objectives of the first research question. However, this calls for a closer look of the similarities and differences between the intergenerational cohort and non-family component aiming at detecting potential patterns linked with continuity of offending across generations.

Sixty two percent of co-offending activity is committed by inmates belonging to the non-family cohort whereas the rest of crimes committed by co-offenders (38%) involve restricted and/or extended family members as partners in crime. Additionally, a number of studies (Farrington et al., 1996, 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997) claim that co-offending between a parent and a child is rare. This said, however a more in-depth analysis by crime type and identification of the restricted and extended relationship between co-offenders belonging to the same crime family (Refer to Chapter 7) is key to understanding the role of the family in crime since the analysis carried out above does not yield additional information about concentration of offending in families.

6.4 The Prison population: an analysis by cohort affiliation

The focus here is to compare the three cohorts aiming at identifying potential patterns specific to cohort affiliation. This is carried out through a demographic overview (sex and age distribution), analysis of crime types and sentence length. This is supported by exploring generations associated with continuity of crime and studying the number of convictions at the individual level through *family tree* size (size is determined by the number of individuals within a crime family).

6.4.1 A demographic overview by cohort (Sex and Age)

This section examines the age and sex distribution of inmates drawing comparisons between the intergenerational and the non-family cohorts.

With regards to sex, various studies indicate sex as one of the “strongest predictors of crime” (Denno, 1994). The comparison carried out is consistent with the analysis carried out in EU countries in that the majority of crime is committed by males (Denno, 1994) in highly disproportionate ratios where Maltese females rarely comprise over 10% of the population at CCF irrespective of cohort affiliation. In summary, irrespective of whether one belongs to the intergenerational cohort or to the non-family component the distribution of male and females is similar when sex is tested as a variable. Future research could focus on studying gender specific pathways to study the father-son and the mother-daughter phenomena.

An analysis of the three cohorts was carried by age shows that most offenders fall within the 20-24 age cohort. An analysis of age-group relationship as per intergenerational and non-family membership shows that intergenerational offenders register more observed counts than expected between the ages of 19 and 39 (Refer to Figure 6.5). Inmates belonging to the non-family cohort register more counts in the 9-16 and then in the older age cohorts (from 44 years and older). A Chi squared analysis showed that there is a significant relationship of $X^2 (11, N = 4979) = 56.34, p < .001$ between presence in a crime family or non-family and the age at time of incarceration.

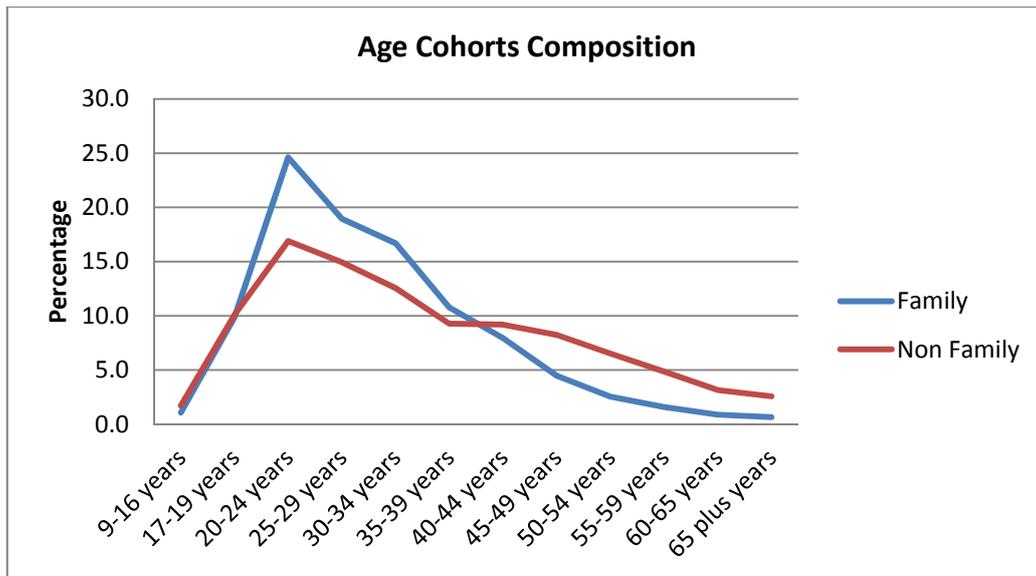


Figure 6.5: Age distribution by cohort

The examination carried out here with age as a variable, does not take in the temporal sequence of “crime preventers” (e.g. turning points; employment opportunities; academic success) and “crime promoters” (e.g. criminal parent; poor parental supervision; impulsivity; peer influence; neighbourhood factors). In summary, further tests are needed to explore one of the most constant observations in criminal career research that there is a strong relationship between age and crime (Farrington, 1986; Moffitt, 1993; Piquero et al., 2003) focusing on potential issues pertaining to intergenerational offending.

The following section reviews convictions served at CCF by crime type and through a comparative analysis distinguishing between cohorts.

6.4.2 *Crime Types by cohort*

The offences listed in the database were classified into two offence categories (Refer to Appendix 2); also such an exercise was used to set the groundwork for analysis as well as to facilitate interpretation of findings. Offences were grouped into a classification distinguishing between the “main group” which is the primary classification used when analysing offences and the “sub-category offence” which was used mainly to provide more in-depth information of respective offences grouped in a sub-category which together constituted a main one. In summary, the sub-category offence is used when the “main group” category could be at times

broad such as in the case of the category “other”. It is noted that the offence analysis procedure adopted here is used whenever examination by type of crime was essential to ensure consistency of analysis.

Figure 6.6 depicts the offence types distinguishing between conviction tickets appertaining to the intergenerational cohort and the non-family component which together represent the 10,888 convictions of the total prison population. The crime sub-category “other-justice” representing conversion of fine multa/ammenda and unpaid legal fees features as the highest frequency for the intergenerational cohort, whilst violence against the person ranks first for the non-family component mirroring trends as per filed police reports (PIRS). Other-justice is also the most frequent conviction ticket awarded by a prison term for the general prison population which crime is also likely to be delivered in conjunction to another prison term. The figures for the general prison population for “other-justice” are influenced by the finding that this sub-category ranks first for the intergenerational cohort, which cohort is a sub-set of the general prison population.

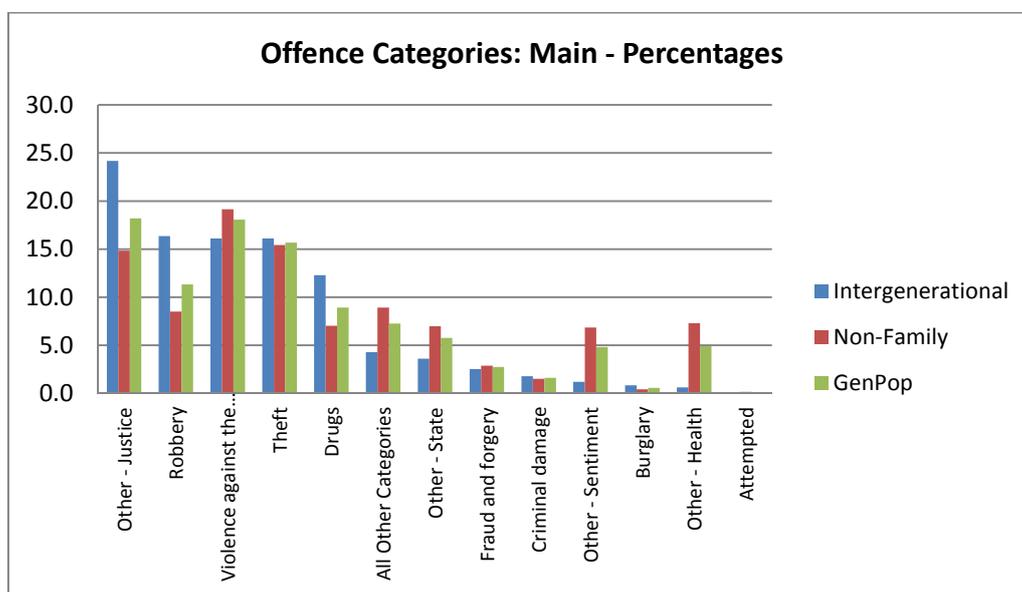


Figure 6.6: Offence Categories – Percentages

An interesting finding (Table 6.6) is that related to the occurrence of robbery (16.4%) which ranks as the second highest frequency for the intergenerational cohort almost twice as much as the incidence for the non-family component (8.5%). The incidence of theft (16.1%) is slightly

higher for the intergenerational cohort, ranking third together with violence against the person (16.1%). A closer look at the crime genres outlined in Tables 6.6 directs one's attention to a pattern of crime specific to the intergenerational cohort. When one omits the category of "other", it transpires that the intergenerational cohort seems to specialise in crimes such as robbery, theft and more pronouncedly drugs.

An analysis which sorts convictions by highest fifteen frequencies using the "sub-category offence", for the two cohorts and the total prison population was also carried out. Findings from this investigation indicate that aggravated theft becomes noticeable when it comes to crimes committed by individuals belonging to the intergenerational cohort. Additionally, robbery highlights violence as a key feature since this crime category is closely linked to the use of force which is central to the completion of hold ups as an example. In turn, "violence against the person" is worth more in-depth investigation so as to examine the seriousness of offences committed by crime families in view of the nature of the relationships identified in the *family tree* (Refer to Chapter 7).

Crimes like aggravated theft, robbery and even more so drugs, particularly trafficking of drugs, require more planning and organisation of the criminal activity. Thus the distinct intergenerational rates could be explained in terms of the fact that individuals either resort to this crime as a source of income potentially to cater for the economic needs of the family or else could use the family 'in-house expertise' directly or indirectly to accomplish the crime. The latter could attest a scenario where within the closed-knit family unit that features in the Maltese Islands, one finds whom to trust to accomplish a high-end task including an organised crime which requires more planning and rational thinking with less risk of exposure by one of the parties.

Also, the number of attempted offences (2) (Table 6.6) attests a scenario through which one can conclude that crime families always accomplish a crime always as they do not feature in the attempted-offences group. This could be attributed to the fact that in the eyes of the offender an attempted offence represents a failed task. Also, the potential labelling (Farrington et al., 2009; Van de Rakt et al., 2009) process resulting out of the identification of disorganised neighbourhoods (Sampson, 1985, 1986; Shaw & McKay 1942; Veysey & Messner, 1999) could in itself instigate crime and foster a culture in which crime is viewed as a task which ought to be accomplished similar to other legitimate daily routine activities. This could be accommodated through the increased probability of being caught because of the family's bad

reputation and meeting the family’s financial needs through crime. This said, the non-presence of attempted offences is an interesting phenomenon worth further investigation.

Table 6.6: Offences of the Intergenerational, Non-Family and General Prison Population

Offences: Main_Group_Offence						
	Intergenerational		NonFamily		GenPop	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Attempted	2	0.1	11	0.2	13	0.1
Burglary	32	0.8	29	0.4	61	0.6
Criminal damage	68	1.8	104	1.5	172	1.6
Drugs	470	12.3	480	7.0	950	8.9
Fraud and forgery	97	2.5	196	2.9	293	2.8
Other-Justice	924	24.2	1,013	14.8	1,937	18.2
Other – State	138	3.6	476	7.0	614	5.8
Other-Health	24	0.6	498	7.3	522	4.9
Other-Sentiment	46	1.2	467	6.8	513	4.8
Other-All Other Categories	164	4.3	609	8.9	773	7.3
Robbery	625	16.4	581	8.5	1,206	11.3
Theft	616	16.1	1,053	15.4	1,669	15.7
Violence against the person	616	16.1	1,307	19.2	1,923	18.1
Total	3,822	100	6,824	100	10,646	100
Not-Defined	153		89		242	
Grand Total	3,975		6,913		10,888	

6.4.3 Summary - Crime types

In summary, the thorough examination of the offence categories highlights a trend specific to the intergenerational cohort particularly for robbery, theft and even more so for drugs. Certain crimes require some sort of organisation or planning ahead more than others. This hints towards the possibility of the family either being a support crime network or a source of accomplices. However, future studies could explore if there is more organised crime among the intergenerational cohort. Findings here show a statistically significant relationship between membership to a crime family and offence type. Also, none of the offences among the intergenerational cohort were “attempted offences”.

In addition, violence and robbery tend to be closely linked augmenting to a scenario rendering this intergenerational cohort likely to be violent prone. Findings from Scandinavian studies

(Putkonen et al., 2002, 2007) have identified a link between violent offending of children and their recidivists' parents which scenario could fit into the local context since the intergenerational cohort is more crime prolific and has higher recidivism frequencies. This said, future research should address whether violence precedes the crime or vice versa and whether violence is intergenerationally transmitted across Maltese families as part of a cycle of disadvantages closely linked to upbringing and lifestyle that could ripple across generations and decades. In summary, violence could be a risk or a mediating factor to the continuity of convictions across Maltese families. Also, the analysis carried out here compares the intergenerational cohort and non-family component in their entirety. A more direct comparison would involve comparing all offenders convicted for example robbery and then compare to the intergenerational and non-family cohorts. To counteract for this, the concept of offending heterogeneity is explored through familial heterogeneity in offending which exercise will be taken up in Research question 3.

The following sub-section compares sentence length by population type based on all convictions between 1950 and 2010 also by analysing the number of days and/or years an individual in the respective cohort spends behind bars.

6.4.4 Sentence length by cohort

An analysis of the number of days/years individuals belonging to the intergenerational cohort spend behind the bars shows that 41.3% of the convictions refer to sentences of 31 days to 1 year, followed by 20.4 % who spend 0-30 days at CCF. Also, another 18.5% represent the 2-5 year sentences whilst another 14.5% are crimes sanctioned by a 1-2 year prison term. Figure 6.7 shows that individuals belonging to crime families tend to serve longer sentences when compared to those who belong to the non-family component and when ultimately compared to the general prison population representing the whole parameter of Maltese offenders at CCF. The only exception is that of the first category where sentences are shorter than 30 days signifying that offenders belonging to crime families conform to the longer sentences as against the shorter sentences likely to associated with 'less serious' offences. Furthermore, the 0-30 day term could probably include conversion of fines into prison days which could be linked to the highest frequency of crime sub-category other-justice for the intergenerational cohort.

Conversely, the individual belonging to the non-family component is likely to serve a 0-30 day term (39%), followed by 36.7% representing the 31 days-1 year sentence whilst another 10.7% spend 1 to 2 years at CCF. Interestingly, the higher intergenerational sentences are found throughout the longer-length sentences, such that in the case of the 2-5 and 5-10 year categories, the intergenerational group registers nearly twice the rate of the non-family. The other categories registered slight differences except for the 20 years plus group where the intergenerational group registers thrice that of the non-family component.

A closer look at Figure 6.7 indicates that the 1-2 year sentences and even more so the 2-5 years are more pronounced in intergenerational cohort. This could be explained in terms of the fact that the individual in the intergenerational cohort commits more crimes than anyone one else at CCF with 2.5 crimes per capita as against the 1.97 crimes for any individual in the general prison population. Consequently this increases the probability for the individual belonging to the crime family to serve a longer prison term. Also, sentence length could be linked to seriousness of offending which phenomenon is studied in Chapter 7.

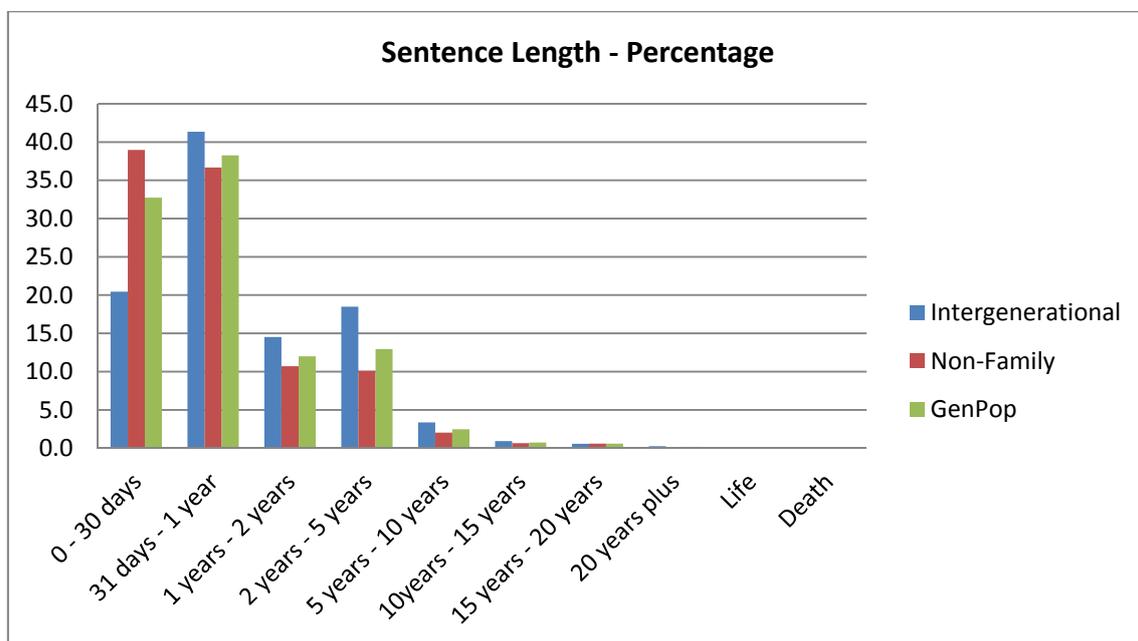


Figure 6.7: Sentence Length (percentage) by cohort

An analysis of sentence length relationship as per intergenerational and non-family membership shows that inmates belonging to crime families registered less observed counts than expected for the shorter sentences (0-30 days). In contrast, an inmate belonging to the

non-family cohort registers more counts in the 0-30 day prison term. Interestingly, inmates belonging to crime families register higher than expected counts for the longer sentences; from 31 days to 15 years as well as over 20 years. A Chi squared analysis shows that there is a significant relationship of $\chi^2 (9, N = 4563) = 121.97, p < .001$ between presence in a family or non-family and sentence length.

Moreover, sentence length is not only related to the type of crime one is convicted for but also to recidivism. Since the intergenerational cohort has the highest frequency of recidivism, calculated on re-convictions, then it is to be expected that the sentence length is significantly affected. Thus, the probability for suspended sentences to be converted into prison days becomes even more likely. Another aspect, which cannot be ignored, is the fact that the attempted offences for this cohort are negligible. Nonetheless, such crime categories are expected to be sanctioned by shorter prison terms. This said, the longer prison sentences for the intergenerational cohort supports earlier findings related to crimes specific to the intergenerational cohort and possible “organised” crime trends.

In summary, these findings particularly those linked to crime prevalence, recidivism and longer sentences for individuals belonging to crime families point towards a scenario where having a family member partaking to crime is a risk or mediating factor to crime continuity which findings are in line with the reviewed literature. However, a more in-depth exploration is necessary to understand whether having a criminal parent is the “strongest independent predictor” (Farrington, 1992), whether siblings convictions concentrate in families (Van de Rakt et al., 2009) or whether crime continuity is promoted through assortative partnering (Kim et al., 2009) amongst other “crime promoters” (Ekblom, 2010). It is noted that this analysis will be taken up in Research questions 2 and 3 (Refer to Chapter 7)

The following sub-section focuses on the number of generations and the crimes committed across the generations attesting to the potential continuity in offending.

6.4.5 Generations vis-a-vis intergenerational continuity in offending

This section presents a discussion on the number of generations (Gs) linked to the continuity of offending. One generation (1G) involves horizontal continuity of convictions within a generation of related inmates such as that involving the association of convictions amongst siblings. On the other hand, 2G, 3G, 4G and 5G (2 to 5 generations) represent vertical continuity in crime through an association of convictions of family members interned at CCF across the generations over the six decades, such as parents and offspring. However, it is noted that a continuity of convictions across 2 to 5 generations could also include horizontal continuities such as through siblings in addition to the vertical component.

Tables 6.7 and 6.8 summarise the analysis carried out to study the continuity of convictions over time vis-a-vis the number of generations representing an association of convictions between related individual inmates. The numbers of offenders are listed according to the type of continuity (1G, 2G etc.) and decade. Also, the attributes (columns) show the distribution of Gs within the decade. Findings here together with findings presented earlier in this chapter (Refer to 6.3) indicate that over decades “lives are linked through crime”. This could indicate that parents, siblings, cousins, spouses and in-laws interned at CCF may have increased over the decades.

Table 6.7: Comparison of Gs by percentage of offences

Gs_vs_Decade_Sentence Crosstabulation – Percentage							
	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010	Total
1G	5.5	6.3	12.0	8.1	20.6	47.5	100
2G	4.3	6.5	10.5	8.5	30.2	40.1	100
3G	3.8	4.5	4.1	10.5	32.0	45.1	100
4G	0.0	0.0	18.2	0.0	9.1	72.7	100
5G	1.5	0.0	11.0	8.8	28.7	50.0	100
Unknown	0.0	0.0	10.0	5.0	15.0	70.0	100
Total	4.6	6.0	10.6	8.5	26.5	43.8	100

Table 6.8: Number of Gs by Offence counts across decades

Gs vs Decade_Sentence Crosstabulation – Counts							
	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2010	Total
1G	78	90	171	115	294	678	1,426
2G	82	124	201	164	580	769	1,920
3G	10	12	11	28	85	120	266
4G	0	0	2	0	1	8	11
5G	2	0	15	12	39	68	136
Unknown	0	0	2	1	3	14	20
Total	172	226	402	320	1,002	1,657	3,779

In summary, findings outlined in the Tables 6.7 and 6.8 above show that the highest incidence of convictions attest a 2G relationship followed by relationship representing one generation (1G). A 2G represents a vertical continuity highly likely to be parental but could also include

a horizontal relationship between siblings, spouses, cousins and/or in-laws in addition to the vertical aspect. Such relationships will be explored in greater depth in the following chapter.

The following sub-section covers crime prevalence through exploring the potential association of convictions through the size of the crime family.

6.4.6 Convictions by family tree size

This section focuses on exploring the prevalence of convictions using the size of the crime family as the main unit of analysis. The focus here is to investigate whether the increased number of family members partaking to crime augments the risk of crime (measured by number of convictions) for the individual/s belonging to crime families.

It is noted that the number of individual inmates per crime family varies from a minimum of 2 to a maximum of 54 individual inmates as represented by nodes. Table 6.9 illustrates the number of individuals belonging to the structures (for example: 2 nodes etc), convictions served by structure size and the crime rate for the individual inmate belonging to a particular structure. Also, 36% of all convictions were in families with two members at CCF likely to involve restricted relationships such parental relationships and siblings representing a potential concentration of convictions in the 2-node structure. This said the nature of relationships representing association of convictions between family members will be examined in the following chapter (Research question 2).

Table 6.9: Number of Crimes by Family Size

	Family Size														
Intergenerational Individuals	2	3	4	5	6	7	8	9	10	12	13	14	18	54	Total
Number of Individuals	689	278	163	134	48	77	45	25	19	9	25	13	17	44	1586
Convictions	1428	612	364	415	181	233	128	111	63	38	135	92	31	144	3975
Convictions per Individual	2.1	2.2	2.2	3.1	3.8	3.0	2.8	4.4	3.3	4.2	5.4	7.1	1.8	3.3	2.5

A trend-line analysis clearly shows that the number of convictions per individual inmate within a crime family increase as the family size grows (Figure 6.8). This could indicate that propensity to offend and possibly “readiness to offend” is amplified in larger crime families. Also the increasing trend becomes more apparent if the largest two families are removed as

they serve as outliers. As a result, the trend-line becomes more pronounced as shown in Figure 6.9. Additionally, as a crime family grows larger in size (18 to 54) a situation similar to a “ceiling effect” on the number of crimes committed per person could also prevail. Another scenario could also explain the “drop” in the number of crimes committed per person for the 14-18 node family structures (Figure 6.8), should the size of the family have an influence on recidivism trends and/or sentence length. In this context, the prison setting in itself could be “incapacitating” the offending careers of the inmates belonging to the larger crime families.

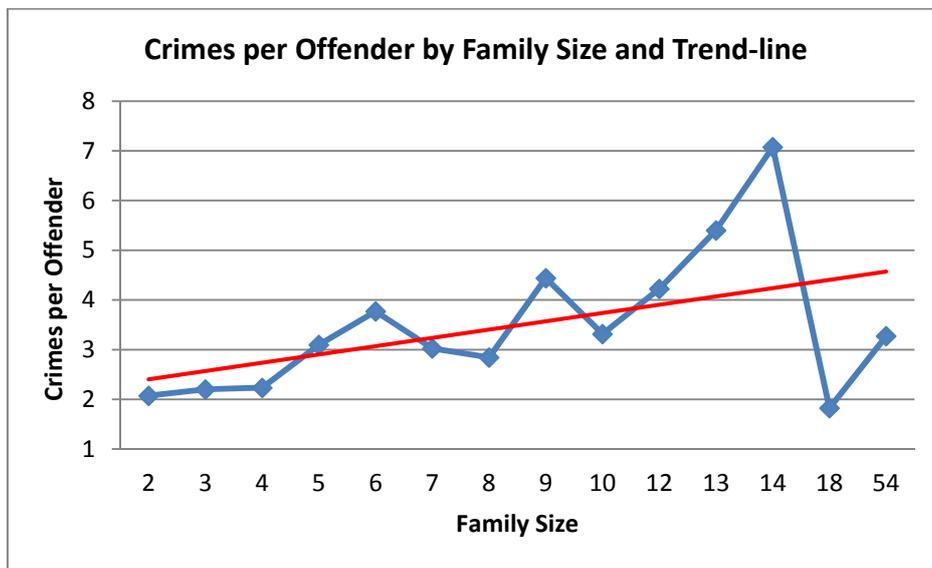


Figure 6.8: Crimes per Offender by Family Size and Trend-line

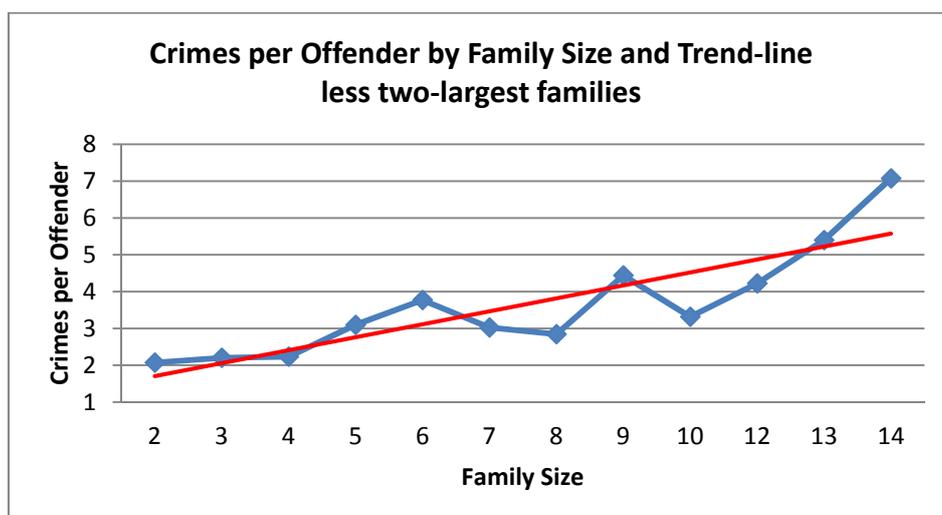


Figure 6.9: Crimes per Offender by Family Size and Trend-line less the two-largest families

Findings show that as the number of individual incarcerated family members increases, the risk for being involved in crime also increase for the family members within that family. Figures 6.8 and 6.9 depict a situation where a 2-node family exhibits an average of 2 convictions per offender which increases to 4 convictions per person in a 6-node structure to 7 in a 14-node structure. Trend-line analysis shows the number of convictions per offender doubles as the family size doubles which analysis complements with findings highlighting that crime and convictions cluster in families (Besemer, 2012; Farrington et al., 1996; Van de Rakt et al., 2009). Also, findings here complement and consolidate previous findings linked to the intergenerational cohort with the latter serving longer sentences, being more crime prolific, greater prevalence of recidivism and the 2G dominating across all decades suggesting a degree of continuity between one generation and another.

This risk of crime continuity could be linked to Ekblom's (2010) concept of readiness to offend which is rooted in the concept of susceptibility to crime where family members acting as "crime promoters" amongst other risk factors not analysed here. Findings here for this Malta study contrast to a certain extent with earlier claims specifying that one parent is enough to render a child at risk of committing crime (Farrington et al., 2009) since parents tend share similar backgrounds. Such a finding could be influenced by family life in closed-knit community like Malta where the size and lifestyle render it difficult for one to detach from familial ties even extended ones, and partner choice is "society centred" (Tabone, 1994). This will be investigated in Research Questions 2 and 3 that focus on exploring the correlations of convictions between different family members and the possible fusion of crime families.

6.4.7 Summary

With sex as a variable being tested findings indicate that demographically the intergenerational cohort and the non-family component follow similar trends. However, with age as a variable, lower age cohorts are more frequent in the intergenerational cohort potentially indicating the presence of siblings and/or offspring within the intergenerational cohort over the decades. A comparative analysis by crime type committed by the two cohorts that together make up the general prison population elicited interesting outcomes which satisfy the rationale underlying the first research question. Findings presented here show that theft, robbery, and drugs are more exclusive to the intergenerational cohort. This is a scenario through which it is likely that crime could be a source of family income and/or a situation whether the closed-knit family

context could serve as a support network in planning crimes that require some sort of organisation unlike opportunity crime and/or a situation in which the family potentially provides trusted accomplices.

This organised approach posits a very interesting scenario for future studies where the rights and obligations, within which these families operate, could be investigated so as to understand the actual dynamics that define membership and roles, which may point toward a comparison to extended crime families, as found in larger states such as Sicily, Italy, Albania, amongst others. Another interesting finding is related to the number of attempted offences for the intergenerational cohort. In addition, convictions for robbery served by the intergenerational cohort render this crime as specific to this cohort but could also point towards a situation where the use of violence is integral to committing robbery.

The intergenerational cohort tends to serve longer prison terms, when compared to the non-family component and the difference between the two cohorts grows with longer sentences. This might be explained better by the greater prevalence and recidivism amongst the intergenerational cohort. Also, as the size of crime family increases, the risk for offending at the individual level also intensifies. In addition, the highest incidence of prison sentences are linked to a 2G family structure which represents a vertical continuity highly likely to be parental as well as a horizontal continuity with relatives varying mainly from siblings to in-laws. Offending across two generations (2G) dominates all decades of offending within the intergenerational cohort suggesting a degree of continuity from one generation to another. Findings here point towards a concentration of crime in a small number of families commensurate with the results from the Cambridge study (Farrington et al., 1996), which specifies that even though few families are involved in crime they commit a relatively large proportion of the crime. In summary, when one combines findings here with findings presented earlier in this chapter (Section 6.3) focusing on examining the number of crimes per capita and recidivism frequencies then the objectives related to the studying offence prevalence and intensity of convictions within the intergenerational cohort are met.

This could be linked to a scenario where a number of risk/mediating factors not only operate as “crime promoters” (Ekblom, 2010) but also accumulate and consequently present themselves as “causes of causes” (Wikström, 2009) which could result in a “cumulative effect” (Besemer, 2012). Also, these in turn could limit one’s opportunity for change (Moffitt, 1993) rendering it difficult for one to escape from the criminogenic environment due to a constellation

of risk factors which phenomena undoubtedly need further exploration. In this perspective, Ekblom's concept of "readiness to offend" could explain continuity of convictions across generations of Maltese families in a country characterised by strong familial links, a strong sense of familial identity and geographical proximity. Also, these constructs specific to family life in Malta could influence continuity of crime as they operate as potential crime promoters. In summary, such could provide an explanation for findings claiming that individuals in crime families are more crime prolific, the risk of offending increases with family size and crime continuity represents predominantly two generations of related inmates.

6.5 Conclusion

This chapter reviewed the aims and objectives outlined in the first research question for this Malta study focusing on convictions awarded a prison sentence served at CCF between 1950 and 2010. A total of 5,093 inmates served 10,888 offences. One in every three inmates registered at CCF between 1950 and 2010 had a relative within the same setting, as represented by the 31.1% classified as the intergenerational cohort. In addition, those still awaiting trial are highly likely to be part of the intergenerational cohort. This said, it is to be highlighted that per capita, the individuals belonging to the 622 resultant crime families commit more crimes (2.5) than that related to offenders belonging to the non-family component (1.97). Thus, the individual in the intergenerational cohort is more crime prolific as reflected by the number of crimes per capita and also highest recidivism frequency.

A demographic analysis focusing on analysing cohorts in terms of sex distribution yielded similar patterns irrespective of presence or absence of relatives involved in crime. Findings here comply with the European trends in that most crime is committed by males. Also, the typical Maltese inmate belongs to the 20-24 age categories, which finding fits into the age-crime curve investigated in criminal career research. The presence of individuals belonging to the intergenerational cohort was noted across all decades. This augments to a prospective increased presence of inmates within CCF related to other inmates by restricted and extended relationship catalysed by findings related to recidivism times for the individual belonging to the intergenerational cohort. In summary, these findings highlight that having a family member in crime could be considered as a risk to crime continuity which risk is augmented by the increased size of the *family tree*.

The relationship between crime type and sentence length is clear when sentence lengths were examined distinguishing between cohort affiliation. The intergenerational cohort tends to serve longer prison terms which scenario is closely linked to the findings related to being more crime prevalence, specific crimes, higher recidivism and the negligible presence of attempted offences which tend to be sanctioned by shorter prison sentences. Theft, robbery and drugs stand out as crimes associated more with the intergenerational cohort. The incidences of robbery for the intergenerational cohort as compared to the non-family component point towards a potential tendency towards the use of violence to accomplish a crime such as a hold-up.

Also, since crimes such as aggravated theft, robbery and drug related offences require more planning than others, the closed-knit family unit could either serve as a support network through which one finds trusted accomplices or the crimes per se could serve as a source of family income. In addition, most conviction tickets are served by inmates linked through two generations of individuals belonging to crime families (2G) which likely represents a blend of vertical relationships such as parents-offspring and horizontal relationships through siblings, spouses, cousins and/or in-laws. Also, the individual inmate within a large crime family is more crime prolific. Consequently, findings point towards a concentration of crime in a relatively small number of families and also signify intense conviction patterns for the intergenerational cohort. However, in the absence of a control group from the general population and since only crimes sanctioned by a prison term are accounted for, the findings presented here do not explain the prevalence of crime on a national scale.

Most crimes involving co-offending activity are committed by two partners in crime. However, 38% of co-offending activity is committed by individuals belonging to the intergenerational cohort. Findings presented in this chapter call for the investigation of restricted and extended relationships in view of crimes committed by individuals in crime families. This is fundamental to understand the role of the family in crime continuity as the main tenet of Objective 2. In summary, this is presented in the following chapter which focuses on the identification of relationships in crime families through a mapping exercise used to construct *trees* complemented by vignettes and an analysis of the influence of these identified relationships on crime.

Chapter 7: Familial relationships amongst Maltese offenders and their effect on crime patterns

7.1 Introduction

This chapter presents a discussion of the analysis pertaining to meet the aims of the second research objective for this Malta study.

The main tenet of analysis presented in the first section of this chapter refers to Research Question 2 that seeks to identify which types of familial relationships are associated with intergenerational continuities of offending. The process employed to study the *family trees* was based on a series of steps that required the identification of categories, the creation of a nodes-branches structure to represent the different structures and the eventual analysis of the main relationships as outlined in the previous chapter. The focus here is to identify the type of relationships that are shared by inmates serving incarcerations at CCF representing the intergenerational cohort, whether the *family trees* are predominantly vertical (V), horizontal (H) or both. Vertical relationships engage at least two generations of related individuals linked to crime continuity involving particularly parents and offspring as restricted family members¹¹⁸. On the other hand, horizontal relationships could involve restricted family members such as siblings and spouses as well as extended family members such as cousins and in-laws. In this structure at least one generation is involved in the continuity of crime. This study employs the Tabone (1994) model (discussed in Chapter 3) to study the potential role of the family in crime continuity. It is noted that the nature of relationships that feature in family life in Malta and as outlined in the Tabone model, accommodate the study of restricted and extended relationships in crime families.

This mapping exercise sets the foundations for the quantitative analysis of relationship type vis-a-vis offending, recidivism and exposure to crime which is presented in the second part of this chapter intended to answer Research Question 3. The third research question aims to outline potential distinctive crime patterns for the intergenerational cohort and studies the effects of identified relationships in the *family trees* on crime patterns. A total of 1,809

¹¹⁸Restricted relationships: relationships between individuals belonging to a particular nuclear family.

individuals were identified from the registration questionnaire to belong to family trees, and these were mapped as 622 families, with the number of individuals in each tree being referred to as nodes. However, it is noted that data for 223 individuals whom are part of these families was missing in the databases, thus not accounted for in the statistical analytical process outlined in analysis of variables (see Chapter 5: Table 5.4). In summary, statistical analysis reflects the data inputted and analysed for 1,586 individuals representing the intergenerational cohort whom represent 31.1% of the prison population.

Research Question 2:

What types of familial relationships are shared by individuals belonging to the same crime family?

The main focus here is to provide a graphical image of structures referred to as *family trees* representing individuals belonging to crime families which structures in turn cater for the identification of restricted and extended relationships. Vignettes, which are pen pictures are used to describe the different familial relationships and the conviction patterns of the individuals who belong to the corresponding structures. Also, the use of vignettes helps in outlining, clearly the nature of relationships between inmates which at times were quite complex to explain and provide the reader with a walkthrough of “criminal careers” at the individual level over time. In other words, this method injects a biographical approach in explaining the dynamics within a crime family. For ethical reasons the names used are fictitious but all other information, such as that related to sentence length, crime type and age of inmate is authentic.

7.2 Familial relationships among Maltese offenders: Research Question 2

The files reviewed cover a sixty year period allow for two to three generations of families to be traced. An initial analysis of the family structures identified that the number of persons involved in family structures is not insignificant. During the initial stages of data gathering which included the review of all physical files of the individual incarcerated population, the

identification of links between individuals gradually increased to cover many different types of relationships.

As more generations are studied across the decades, an increasing population of incarcerated individuals (both familial and non-familial component) are captured by the dataset. Additionally, the number of families in the general population who have never been interned at CCF could have also grown over time. Interestingly, as the number of generations and nodes (individuals) in crime increased the likelihood of different families involved in crime fusing together became more evident. This could be linked to a family characteristic in Malta, since it is difficult for one to detach from roots and extended family ties are also quite strong. Additionally, in Malta, partner choice is influenced by familial roots and thus it is more likely for one to establish a relationship with someone from a similar background. Crime families were grouped into “*trees*” through categorisation based on the number of nodes (2 to 9 nodes and 10+ nodes).

Table 7.1 shows that the 2-node family is the most frequently occurring family structure represented by 65.8% of the intergenerational cohort followed by the 3-node (16.2%) and the 4-node (7.1%) structures. There are 409 families (as a family count) who are represented by the 2-node structure and these families will be examined in more detail in section 7.3.1. By contrast, only 11% (68 families from 622 families as per family count) represent the 5-nodes to the 10+ nodes structures, however they embrace a significant concentration of individual counts (512 individuals from a total of 1,809 individual counts; 28.4%).

In summary, this table shows that 11% of families (68/622) accounted for 28.4% of the offenders in the intergenerational cohort, which results in a situation where just over a quarter of all intergenerational offenders were from families comprising five or more relatives in prison. Also, the offence share of the 2-node was 35.9%. Interestingly, the small numbers of families in the 10+ node structure have a relatively large percentage of offences; in fact their share of crime is one of 12.7% of all offences. If the number of offences were rated by the number of families, the 2 node families register an average of 3.5 offences per family, whereas the 10+ families register 56 offences per family.

Table 7.1: Number of families and individuals in prison vis-a-vis number of incarcerations per family structure: 1950 – 2010

Family Structures	Individuals Count	Family Count	Individuals Percent %	Family Percent %	Offences	Offences Percent %
2 individuals in prison	818	409	45.2	65.8	1428	35.9
3 individuals in prison	303	101	16.7	16.2	612	15.4
4 individuals in prison	176	44	9.7	7.1	364	9.2
5 individuals in prison	145	29	8.0	4.7	415	10.4
6 individuals in prison	54	9	3.0	1.4	181	4.6
7 individuals in prison	84	12	4.6	1.9	233	5.9
8 individuals in prison	48	6	2.7	1.0	128	3.2
9 individuals in prison	27	3	1.5	0.5	111	2.8
10+ individuals in prison	154	9	8.6	1.5	503	12.7
Total	1809	622	100	100	3975	100

Table 7.1 clearly indicates that these crime families vary in size. This said, it is to be highlighted that the 2-node and 3-node structures represent restricted family involvement in crime. However, as the number of nodes increases the trend towards involvement in crime of extended family members becomes more likely and the risk for offending is augmented by the increased family size as outlined in Chapter 6. Note the 10+ category can be subdivided as follows as depicted in Table 7.2 which shows that 9 families between them hold 154 persons. A concentration of inmates lies within one large family that is made up of a number of families that have intermixed and aggregated into one large structure. The latter family as shown in Table 7.2 is composed of 54 incarcerated persons. This will be discussed in-depth in Section 7.3.2.

Table 7.2: Number of families and individuals in the 10+

Family Structures (individuals in prison)	Individuals Count	Family Count
10	30	3
12	12	1
13	26	2
14	14	1
18	18	1
54	54	1
Total	154	9

7.2.1 Summary

This section identified the significance of the number of generations, number of nodes per family and the type of family structure. It is noted that these factors set the context in which an increased number of families involved in crime were more likely to fuse together through marriage or partnership¹¹⁹ to form a larger family unit accounting for a concentration of convictions in a small number of crime families. The 2-node structure is the most frequent family tree representing continuity of convictions involving two inmates. In this respect, this could indicate that having one parent in crime (Farrington et al., 2009) is enough to posit a transmission risk in the intergenerational continuity of offending. However, the analysis carried out here does not yield information on key figures and nature of relationships representing association of convictions. Consequently, the following section provides the reader with information of the nature of the relationship (vertical and or horizontal) featuring in crime families by decade. This is followed by a discussion that overviews identified restricted and extended relationships with the size of family (nodes) as the main unit of analysis.

7.3 Relationship type

After the mapping of 622 family trees and subsequent classification of trees by nodes, a quantitative analysis of the most frequent 15 relationships representing crime continuity was carried out. The nature of restricted and extended relationships and the combination of such relationships was so extensive that a cut-off point had to be taken which is represented by the highest 15 relationships. Also, these top “15 relationships” represent around 59% of all the identified relationships in crime families whilst they feature in almost 73% of all crime families. Note is made that the process involved the identification of conviction/s served by identified relatives who at any point in time, were at CCF between 1950 and 2010 adopting the “any lifetime offending” (Besemer & Farrington, 2012) comparative approach. A detailed overview of the incarcerations served by individuals belonging to the intergenerational cohort, sorted by identified restricted and extended relationships is found in Appendix 3 (Figure 1 and Table 1).

¹¹⁹ Cohabiting relationships and or step-parenting.

The highest registered relationship represents a horizontal continuity within a generation between siblings as brothers; 19.2% of all incarcerations interned at CCF. This was followed by a vertical continuity across at least two generations defined as parental: father-son; 8.9% of all incarcerations served over sixty years. In other words, siblings as brothers are more crime prolific followed by father-son relationships. Additionally, the relationship attesting a combination of vertical and horizontal relationship “father-son-father’s brother” not only fuses the two most dominant relationships but enlarges their share in crime. This is influenced by the finding that these two relationships representing crime continuity, also dominate the 2-node structure which represents 65.8% of all crime families (Table 7.1). This said, it is interesting to examine co-offending committed by at least two individuals belonging to the same crime family and whether it is siblings or father-sons who co-offend.

The siblings’ factor for this Malta study points towards a situation where siblings “promote” crime and this could explain the accumulation of siblings’ convictions in the *family trees* similar to findings from the Van de Rakt et al.’s (2009) study. This could be explained by the possibility that in Malta, siblings are more likely to reside within the same household whether with their parents or grandparents. Also, should this not be the case, family members are likely to ensure that some sort of social interaction between siblings takes place. This said, exploring co-offending patterns of siblings is necessary to investigate potential “learning” as a risk factor mechanism to crime. Additionally, this investigation will be taken a step further in Chapter 8 focusing on geographical proximity as a risk/mediating factor to crime continuity.

7.3.1 Familial relationships by structure size (node)

The 2-node structure is composed mostly of siblings as brothers (41.6%) representing a horizontal relationship. This is to some extent linked to the pronounced presence of males in the general prison population and the intergenerational cohort as its subset. In order to understand the significance of the siblings group, in terms on the relative concentration of the 2-node in relation to all other family structures, the study shows the predominance of the 2 nodes structure in crime families (Refer to Appendix 4: Table 1). The analysis shows that the brother-brother relationship is very high, as it comprises 27.3% (170) of all families. This is followed by a potential vertical continuity involving fathers and sons represented by a 21.8% (89) and a potential horizontal continuity between cousins represented by 11.5% (47). Also, in this context, the presence of parental relationships here is in line with previous research

claiming having one criminal parent is enough (Farrington et al., 2009) to posit a transmission risk to crime continuity.

The vertical relationship of uncle-nephew relationship is represented by 10.0% (41) of all families. The latter two categories describe also the importance of the extended family in the Maltese family context which is characterised by strong ties between family members residing in different households, where the insularity of the islands is instrumental in the establishment and maintenance of such bonds between extended family members. The three most dominant relationships have the following node-branches structure (Refer to Figure 7.1), which between them take up to 74.9% of all the 2-node structure. The individuals in the 2-node structure represent 16% of the general prison population.

3 Most Dominant Relationship

Structure Depiction

Vignette

Primary Most Dominant

Horizontal - 2 Nodes 1 Branch

Relationship: Brother – Brother

Concentration: 41.6% of 2-Node relationship (170 relationships; 594 incarcerations)

1 Generation (1G)



Daniel, the eldest of two brothers entered prison at the age of 20 serving a 32 day sentence for theft. After six years, he served another prison term along with his 18 year old brother Simon. They were both sentenced (540 days) for a crime related to prostitution which crime they committed together as co-offenders. Whilst serving his conviction, Daniel was awarded another sentence (365 days) for being involved in prostitution. Daniel is a recidivist (2 times). Within 8 years of Daniels' release, Simon aged 32 received a 15 day prison term for giving false statements. Simon is also a recidivist (1 time).

2nd Most Dominant

Vertical - Nodes 1 Branch

Relationship: Father – Son

Concentration: 21.8% of 2-Node relationship (89 relationships; 311 incarcerations)

2 Generations (2G)



Pawlu aged 21 was sanctioned by a prison sentence for theft. Another four convictions related to theft, conversion of multas, traffic violations and fraud followed. Between 1950 and 1964, Pawlu spent 531 days at CCF; a recidivist (4 times). In 1995, his son Zaren aged 38 was sentenced to prison for criminal damage spending 150 days. Zaren had one conviction ticket; thus he is a first timer.

3rd Most Dominant

Horizontal - 2 Nodes 1 Branch

Relationship: Cousin – Cousin

Concentration: 11.5% of 2-Node relationship (47 relationships; 164 incarcerations)

1 Generation (1G)

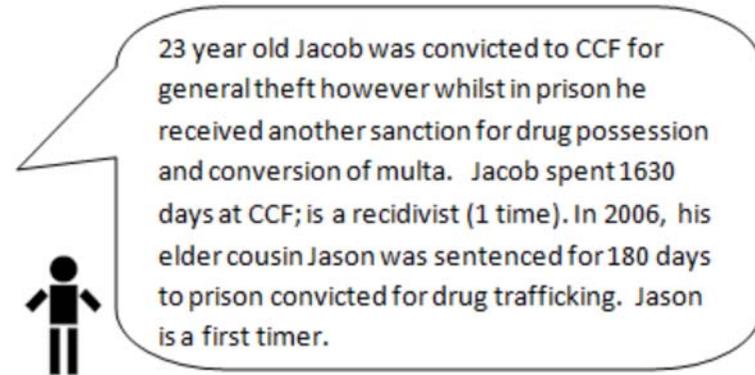


Figure 7.1: Most Dominant relationship: 2-Node Structure

Similarly, the 3-node structure is predominantly composed of siblings as brothers characterising a horizontal relationship represented by 21.8% (Figure 7.2). Also, the second-highest relationship at 12.9% (13) represents a vertical and horizontal relationship (father-son-father's brothers) blending and consolidating three concepts/relationships; the parental (father-son), the siblings as brothers and the uncle-nephew relationships also emergent in the 2-node structure. The third most common relationship represented by 9.9% (10) characterises a potential combined vertical (father and sons) and horizontal link which to some extent builds on the previous finding related to brothers, once again linking the paternal and the siblings-brothers concept complementing and consolidating findings of the 2-nodes family structure (Refer to Appendix 4: Table 2). It is important to note that the brother-brother issue and the father-son dominance is very strong since at any point the brothers, when not singularly identified as solely brother-brother, have in addition either their father or their son identified in the structure.

3 Most Dominant Relationship

Structure Depiction

Vignette

Primary Most Dominant

Horizontal - 3 Nodes 2 Branches

Relationship: Brother – Brother – Brother

Concentration: 21.8% of 3-Node relationship
(22 relationships; 133 incarcerations)

1 Generation (1G)



Karl, Michael and Ryan are three brothers born in 1955, 1958 and 1947 respectively. Since he was 16 years old, Karl resided at CCF serving six tickets (total of 851 days) for various crimes such as disturbance, blasphemy, conversion of multas, aggravated theft and drug trafficking. Karl is a recidivist (5 times). Whilst at CCF, his younger brother Ryan aged 32 was convicted for homicide serving 5,510 days but since he served one conviction he is a first timer. In the 2000s at the age of 46, Michael served in total 4 conviction tickets (840 days) for fines and legal fees he failed to pay. Michael is a recidivist (3 times).

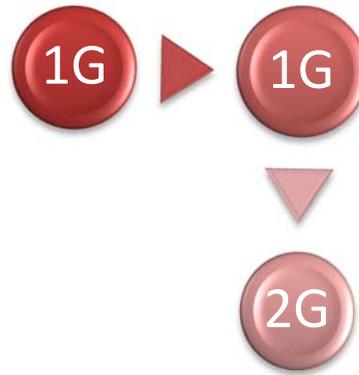
2nd Most Dominant

Vertical & Horizontal- 3 Nodes 2 Branches

Relationship: Father-Son-Father's Brother

Concentration: 12.9% of 3-Node relationship

2 Generations (2G)



Cikku the youngest brother of Ganni entered CCF at the age of 30 spending 540 days for theft and conversion of unpaid legal fees. Eight years from his release, Cikku was sanctioned a 2 day prison term for "all other categories". Cikku is a recidivist (1 time). Nine years from Cikku's release, 40 year old Gianni spent 1,640 days at CCF for drug possession and an unpaid multa converted into prison days. This being his only conviction ticket, Gianni is a first timer. Within 5 years of Cikku's release, 20 year old Mark (son of Cikku) set foot in CCF convicted for homicide (3,650 days). Mark is a first timer.

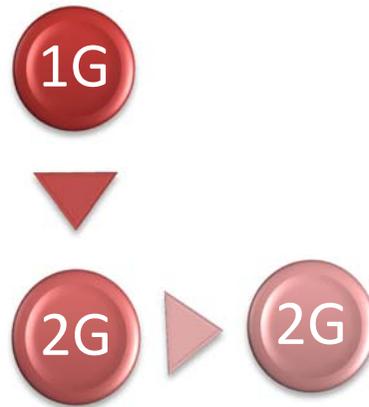
3rd Most Dominant

Vertical & Horizontal - 3 Nodes 2 Branches

Relationship: Father – Sons

Concentration: 9.9% of 3-Node relationship
(10 relationships; 61 incarcerations)

2 Generations (2G)



Karmnu and two of his three sons; Pietru and Kelinu were involved in crimes related to drug trafficking and conspiracy of trafficking drugs as co-offenders. 57 year old Karmnu, 27 year old Pietru and 20 year old Kelinu spent 2,134; 3,139 and 2,418 days respectively for the crime they committed as co-offenders and for having failed to paid legal fees. Since they were awarded one prison term each, they are all considered as first timers.

Figure 7.2: Most Dominant relationship: 3-Node Structure

The siblings-brothers concept featuring a horizontal relationship stands out notably once again here represented by 15.9% (7) of the 4-node structure complementing and consolidating findings in the 2-node and 3-node family structures respectively (Figure 7.3). This is followed by a 9.1% (4) representing the siblings-cousins horizontal relationship mirroring a structure feature emergent in the 2-node structure. The third most important relationship is shared by three relationships including father-sons (vertical & horizontal); siblings-cousins (horizontal) and the father-son-father's brothers (vertical & horizontal) blending three relationships the parental (father-sons) and siblings-brothers and the uncle-nephew concept consolidating features earlier identified in the 2 and 3- node family structures (Refer to Appendix 4: Table 3).

3 Most Dominant Relationship	Structure Depiction
<p>Primary Most Dominant</p> <p>Horizontal - 4 Nodes 3 Branches</p> <p>Relationship: Brother – Brother – Brother - Brother</p> <p>Concentration: 15.9% of 4-Node relationship (7 relationships; 25 incarcerations)</p> <p>1 Generation (1G)</p>	
<p>2nd Most Dominant</p> <p>Horizontal - 4 Nodes 3 Branches</p> <p>Relationship: Siblings – Cousin</p> <p>Concentration: 9.1% of 4-Node relationship (4 relationships; 15 incarcerations)</p> <p>1 Generation (1G)</p>	

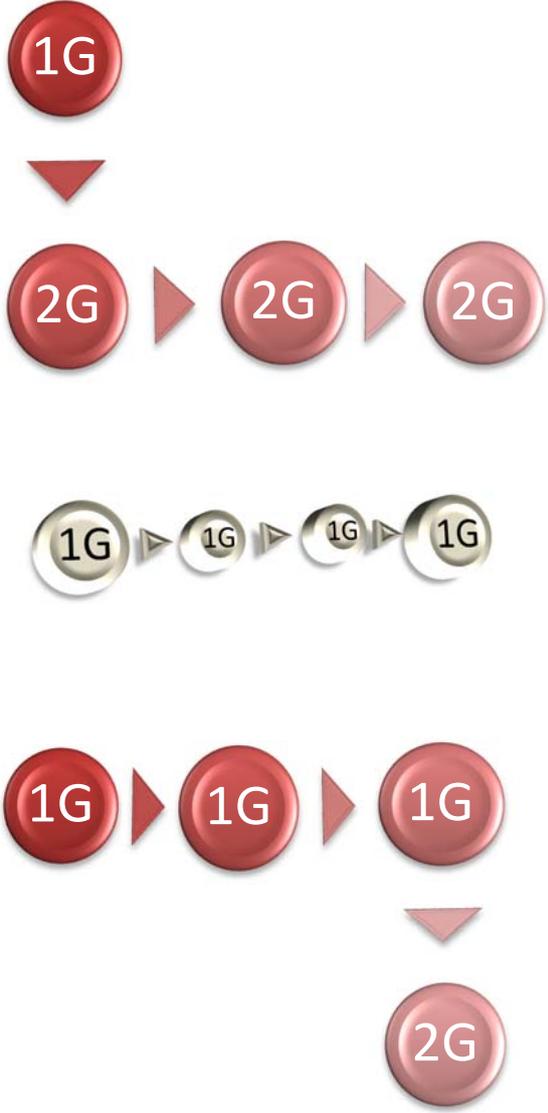
3 Most Dominant Relationship	Structure Depiction
<p>3rdMost Dominant (shared between 3 groups)</p> <p>Vertical & Horizontal- 4 Nodes 3 Branches</p> <p>Concentration: 6.8% of 4-Node relationship</p> <p>Relationships:</p> <p>Father-Sons</p> <p>Siblings-Cousins</p> <p>Father-Son - father's-brothers (3 brothers and the son of one of them)</p> <p>1 Generation (1G) or 2 Generations (2G)</p>	 <p>The diagram illustrates a 4-node structure with three branches. It consists of the following elements: a red circular node labeled '1G' at the top; a downward-pointing red triangle below it; a horizontal row of three red circular nodes labeled '2G' connected by right-pointing red triangles; a horizontal row of four light-colored circular nodes labeled '1G' connected by right-pointing light-colored triangles; and a horizontal row of three red circular nodes labeled '1G' connected by right-pointing red triangles. Below the rightmost '1G' node in this row is a downward-pointing red triangle, which points to a red circular node labeled '2G'.</p>

Figure 7.3: Most Dominant relationship: 4-Node Structure

The 5-node family structure is characterised by vertical and horizontal relationships with three most dominant relationships amounting to 44.8% collectively directing ones' attention to marriage/partnership between individuals in crime, father-son continuity, the siblings' factor in conjunction with cousins and in-laws. These translate to 17.2% (5 families) composed of spouses/offspring/siblings/in-laws, 13.8% (4) composed of father/son/cousins and another 13.8% (4) comprised of the paternal 3G relationship (Refer to Appendix 4: Table 4). Whilst it

is not feasible to discuss dominance by a family type from the 5-node upwards, due to the small counts in each category, it is interesting to note that these family structures still exhibit predominantly siblings and father-sons relationships. Being aware of the diminishing family numbers in the higher-member families, the 6, 7, 8 and 9 node families were grouped into a structure defined as the 6-9 node structure whilst those having 10 up to 54 nodes were grouped into a structure referred to as the 10+ Node.

The 26.7% (8 families) point towards the effects of marriage/partnership between individuals in crime and the ultimate fusion of families representing continuity of crime in the 6-9 node structure. These potentially involve a combination of vertical and horizontal relationships. The former include spouses and offspring as well as step-children whilst the latter include particularly sons as siblings, in-laws and cousins. The original table can be found in the Appendix 4 (Table5). This is followed by two relationships registering a 16.7% (5) highlighting the potential paternal and parental links as well as horizontal linkages through in laws, siblings as brothers and cousins. The next group 13.3% (4) adds on the previous two relationships in that it highlights potential continuity in crime across three and four generations involving fathers, sons and/or step-sons, consolidating previous findings in 2/3/4/5 node structures particularly highlighting the siblings, parental and extended family factors.

As the families increased in size with the number of nodes reaching five and even more so towards the ten+ nodes, the interconnectedness of relationships gets more complex. This is accommodated by a scenario in which individuals belonging to families involved in crime establish some sort of relationships with individuals belonging to other crime families either through marriage, cohabitation or parenting of an offspring (biological parents and step-parenthood). Crime continuity in the 10+ is evidenced by convictions served by individual inmates within a crime family is characterised by a blend of vertical and horizontal relationships highlighting and consolidating features emergent across all other structures i) vertical relationships mainly father-son including stepsons in some cases, the predominant siblings factor attesting a horizontal relationship ii) uncle/s and /or aunt/s, cousins and in-laws factors comprising vertical and horizontal relationships representing the effects and ties with extended family members, iii) marriage and partnership symbolising the union between crime families. A detailed summary of the relationships that feature in the 10+ structures is provided in Table 6 (Appendix 4).

In summary, as the number of nodes increases, so does the possibility of having siblings in crime, parents in crime and thus possibly paving way for having spouses or partners (cohabitation) fusing families involved in crime augmenting the risk of crime continuity. These phenomena are even more pronounced in *ig_040*¹²⁰, *ig_311* and *ig_174* with *ig_040* as the *çorma* (a Maltese term used to describe a large crime family in this Thesis) hosting a marked presence of parents as shown in their family tree labelled as Figure 7.4. This builds on the findings from the previous chapter where it is claimed that the increased size of the family augments the risk of crime propagation rendering one more crime prolific and accounting for a concentration of convictions in crime families. A discussion on the *çorma* is presented below.

7.3.2 The *Çorma*

The 54-node structure has been specifically analysed in isolation from the rest due to its integration of a large number of individuals whom together form the “*çorma*¹²¹”, a major entity which has grown through marriage and cohabitation at times even involving two partners/ex-partners in crime of the same individual with different individuals fusing the families of origin into a *çorma* (Figure 7.4). The 54-node structure is composed of 5 families with their lives linked through crime representing two to five generations of families between 1950 and 2010. The families are hereby referred to as A, B, C, D and E.



Figure 7.4: The *Çorma*

Note: Refer to fold-out on page 195

Family A represents vertical and horizontal relationships across five generations featuring father-son relationships, siblings’ factors, marriage/partnership with an individual in crime, and extended family members such as in-laws, uncles, aunts and cousins.

¹²⁰A crime family is identified by an *ig_no*.

¹²¹The Maltese word *çorma* stands for a large group of people whereas the expression ‘*çorma ifal*’ stands for a large group of children.

Family B represents vertical and horizontal relationships across three generations attesting parental continuity such as father-sons and even mother-sons; horizontal continuity through siblings; extended family factors such as in-laws, uncles/aunts and cousins. Interestingly one here notes the influence of the extended family factor is quite significant considering the incarceration records of individuals whose parents are not in crime but their grandfathers, uncles, aunts and cousins are.

Family C represents a 2G vertical and horizontal relationships including father-son; siblings: sons' factors and extended family factors such as aunt and in-law.

Family D represents a vertical and horizontal continuity across three generations highlighting the father-son factor across all three generations and the siblings' factor across the latter two generations.

Family E is a relatively small family structure compared to the counterparts forming the *ćorma*, featuring 2G vertical and horizontal relationships involving a father, son and daughter. The latter interestingly had matrimonial/cohabitating relationships with two different partners with an incarcerated record belonging to two of the five families forming this *ćorma*.

This vignette highlights a number of key figures in the *çorma*. The emphasis is on the marriage/partnership relationships through which families fuse to form larger crime families.

Nellie a recidivist (from family A) aged 25 has served two sentences (1,900 days) since 1992 for procurement and conversion of multas. Thirty years prior to her first prison sentence her father Zaren at the time aged 46 served a 630 day prison term for procurement. Nellie has a number of family members who have served prison terms, including her half brother and his father, cousins, nephews and nieces. In the 1990s Nellie married Karmnu (from family B) who, from 1981 to date served 32 prison terms (18,062 days); eleven of which were related to conversion of multas and others related to robbery, theft, burglary, drugs, false statements, bail offences and traffic violations. Frans, Karmnu's father served three prison terms in the 1950s for crimes including traffic violations, robbery and conversion of multas. Karmnu had two younger brothers (Philip and David) and a sister (Lilly) awaiting trial at CCF at the time of this research. Philip spent a total of 837 days at CCF between 1994 and 2010 for robbery and two sentences related to conversion of multas. David was convicted for robbery during the incarceration period of his brother Karmnu. Lilly has four sons at CCF; three awaiting trial and another sentenced as detailed later on. Karmnu had other nephews who spent years at CCF but whose mothers (Karmnu's sisters) were not involved in crime. Two of his nephews are Michael (Lilly's son) who spent 14 days for bail offences and 20 year old Keith who between 2002 and 2010 spent a total of 3,990 days serving five conviction tickets; robbery, theft and conversion of multa. Karmnu had another sister who was married to Stephen (family D) who spent 2,555 days at CCF for crimes related to prostitution and procurement and their son Karl spent 5 days for a conversion of multa. Stephen's father, his other two brothers and a number of nephews and nieces also served convictions at CCF this reality describing 'named' inmates' is further depicted through the lifetime histories in CCF of another 43 individuals in this 'extended' family.



Considering the number of nodes within this structure it is to be expected that a concentration of complex restricted and complex extended relationships prevail. However, this said it is not clear which relationship preceded the other and/or which relationship resulted following another familial relationship. Also, the *çorma* represents the fusion of five crime families into one large family, which is possibly linked to assortative partnering and research that claims

that people look for similar backgrounds in partner choice (Brennan et al., 2002). Additionally, the data analysed here does not provide information about choice of partner neither it does provide information whether partnership/marriage preceded the crime or vice versa. In other words, it is not known who acted as a “crime promoter”.

This said however, findings here depict the 10+ node as a structure where members could or could not be aware of their membership. In summary, the quantitative analysis presented here could not provide information about whether crime serves as a means of identity for the individuals through membership in a respective crime family. Future studies should focus on studying this identity factor also in view of potential labelling of crime families could result in increased monitoring thus increasing the probability of being caught (Van de Rakt et al., 2008) particularly in Malta where “ill-credited” families tend to be well known (Tabone, 1994).

7.3.4 Summary (Research Question 2)

The 2-node family structure is the most common family structure represented by 65.8% with this structure characterised predominately by a horizontal relationship between siblings as brothers followed by a vertical relationship representing parental continuity including fathers and sons and horizontal continuity through cousins. The siblings as brothers factor as a horizontal relationship together, also, with the father-son relationship primes also the three node structure. The concentration of offending amongst siblings¹²² and the continuity of crime through father and son¹²³ have dominated findings in a series of studies focusing on understanding the linked lives concept through intergenerational designs and criminal career research. Also, findings here attest a situation where most convictions appertaining to the intergenerational cohort, are served by inmates who are frequently related through brotherhood followed by father-son relationships across the different models presented. These findings suggest that the presence of a convicted brother or father within a family increases the risk of

¹²² Examples include: Farrington (2002, 2011); Farrington and West (1990); Farrington et al. (2001); Hayne and Mc Hugh (2003); Rowe and Gulley (1992); Rowe et al. (1992); Smith and Farrington (2004); Van de Rakt et al. (2009).

¹²³ Examples include: Besemer and Farrington (2012); Bijlevald and Wijkman (2009); Farrington et al. (2001, 2009); Hjalmarsson and Lindquist (2009); Mc Cord (1977); Nijof et al. (2009); Putkonen et al. (2007); Smith and Farrington (2004); Thornberry et al. (2003); Van de Rakt et al. (2009); West and Farrington (1977).

crime continuity in that family, and the brother or father here can be identified as a potential crime promoter.

As the number of nodes increases, the tendency is that the crime continuity is sustained through a blend of relationships; a case in point is the incidence of a combination of vertical and horizontal relationships representing father-son/s-father's brothers. Also, the cousins, stepsons and in-laws factors become more prevalent as the number of nodes increases from the 5 to the 10+ node structures. One quarter of the individuals in the intergenerational cohort belong to crime families having five or more members as inmates at CCF. This indicates, that, as the number of incarcerated family members' increases as indicated by size of crime family, the risk of crime continuity is augmented since each family member's acts as a potential "crime promoter". Also, this accords with findings from the investigation carried out for answering the first research question (Chapter 6) where it is claimed that the increased size of the crime family influences one's criminal propensity, augments the risk of crime continuity possibly through constructs linked to "readiness to offend" (Ekblom, 2010) and that convictions concentrate in a relatively small number of families.

Overall, the predominant feature is one based on siblings, mainly brothers, in one case 6 brothers, though sisters were also involved. It is to be noted that the 10+ node structure symbolises the interconnectedness of crime families. Additionally, the complexity of the relationships between individuals in crime intensifies in a way that crime families fuse into a larger family through relationships including blood ties and marriage/partnership. This could be linked to the concept of assortative partnering (West & Farrington, 1977) as partner choice is shaped by one's lifestyle and one tends to choose a partner who comes from a similar background. Also, partner choice has been identified as a risk factor mechanism highlighted by Farrington et al. (2001), Farrington (2002) and Farrington (2011); marriage/partnership accommodating the fusion of crime families could be considered as a risk factor to crime continuity across generations of Maltese offenders.

Consequently restricted family members (brother, father, partner) such and extended family members (in-laws) could act as crime promoters (Ekblom, 2010) linking lives through crime. A case in point is the *corona* composed of 54 individual offenders representing two to five generations of families witnessing a blend of vertical and horizontal relationships through marriage and/or partnership which could have been strengthened by the birth of a child and through extended family relationships representing family of spouse and/or partner represented

by the in-laws factor. Also, the nature of links between the five families constituting the *ċorma* and the crime types committed across sixty years by the individual inmates are worth an in-depth study on their own. Additionally, the interconnectedness of crime families could have been influenced by kinship ties that feature in family life in the Maltese islands, the strong sense of familial identity, geographical proximity and the need to support family members in good and bad times (Tabone, 1994). These social constructs possibly augment the risk of crime continuity considering findings outlined in the previous chapter that, as the size of the crime family increases, the convictions served by the individual inmate also increase.

The creation of graphical models depicting restricted and extended relationships in each respective structure based on the number of individuals (nodes) in a family tree satisfies the objectives of the second research question. The models (2-node; 3-node; 4-node; 5-node; 6-9 nodes and 10+ nodes) represent crime families portraying relationships which were identified through the registration questionnaire. This said, however findings here do not provide information on quality of relationships. In summary, it is not known whether the brothers lived together or if they had a good/bad relationship, and this may also apply to parents-offspring and other identified relatives. Also, other limitations relate to timing of incarceration and length of sentencing which could affect the quality of relationships between individuals within a family. These are also the main critical points brought up in a number of studies adopting the intergenerational design used to study across individual differences since most studies compare “any lifetime offending” to link the criminal behaviour of parents and their children without focusing on timing and intensity of parental criminality (Besemer & Farrington, 2012). Furthermore, the investigation focusing on exposure to crime is intended to explore the social interaction between individual inmates belonging to the same *family tree* (Refer to 7.6)

The following section analyses relationships identified in the mapping exercise of *family trees* (Research Question 2) and their potential influence on crimes trends which aim to explore the empirical rationale underlying the third research question.

7.4 Research Question 3

Are there distinctive crime patterns pertaining to restricted and extended relationships in crime families? If so, to what extent do such configurations potentially influence an individual's criminal activity?

The main tenet of this section is to examine restricted and extended relationships that feature in crime families, in relation to crime focusing on seriousness of offending and recidivism. It is noted that, the information generated from the second research question serves as a basis for the third research question. The focus is on relationships involving siblings, parents and spouses and on structures such as the 2-node and the 10+ node. The procedure adopted to study crime patterns distinguishing between cohort affiliations in Research Question 1 (Chapter 6) is also employed here through the use of the main offence category.

This is in turn supported by an investigation of exposure to crime as a risk/mediating factor to crime continuity through studying i) crimes committed by co-offending partners belonging to the same crime family ii) Sampson and Laub's (1990) concept of "cumulative learning" claiming that on frequent exposure to crime children tend to perceive this behaviour as "normal" and iii) temporal proximity of convictions focusing on time intervals between parents' and offspring convictions and studying to what extent siblings were interned at CCF during the same time.

7.4.1 Relationships and their impact on crime trends

This section examines three specific relationships which were deemed pivotal for this Malta study in order to explore, in depth, restricted relationships between individual inmates; siblings, parental and spouses.

Similar crime trends were manifested by siblings and spouses with "other-justice" (sub-category of the main offence category "other") scoring the highest ranking frequency representing conversion of fine multa/ammenda and unpaid legal fees into prison days, followed by theft, robbery and violence against the person. Additionally, an analysis of incarceration tickets by crime type shows interesting trends for siblings. One quarter of incarcerations related to theft, almost one fifth of drug offences and nearly one fifth of the crimes linked to violence against the person were served by siblings interned at CCF. The

drugs phenomenon featured in all three analysed relationships mirroring crime trends of the general prison population and filed police reports. The slightly higher rates of drugs conviction for siblings could be explained in terms of increased filed reports (PIRS) during the last two decades and a possible scenario linked to age as a factor. Furthermore, siblings predominately brothers, are also more crime prolific. This said, an analysis of crimes committed by siblings as co-offending partners and a closer look at the 2-node structure could explain further the influence of this relationship on crime.

Similarly for relationships tagged by the presence parents and offspring, the most frequent crime for this type of relationship is “other-justice”. Interestingly and in contrast to the siblings’ relationship, the phenomenon of violence is here more pronounced as evidenced by the prevalence of crimes related to violence against the person. Findings here and those outlined in Chapter 6, indicate a tendency towards serious crimes particularly offences such as aggravated theft, robbery, violence against the person and also drugs. In other words, findings here combine crime prevalence and seriousness of offending to a certain extent similar to the Nijhof et al. (2009) study were both phenomena could act as risk or mediating factors to crime continuity.

The following section takes the study of the impact of relationships on crime patterns a step further as it presents a discussion on “serious crimes” for these specific relationships. It is to be noted that the categorisation of the offences employed in defining and analysing serious offences is based on the reporting system (PIRS) employed by the Malta Police and the categories used to classify incarcerated inmates at CCF, both of which are loyal to the Maltese criminal code (Refer to 5.6).

7.4.2 Relationships and seriousness of offences

As the data reviewed in this study was based on categorical (nominal) attributes, such as relationships (e.g. siblings), the conjunctive analysis of case configuration method developed by Miethe et al. (2008) was employed. This method serves to analyse discrete multivariate analysis for categorical data and allows for a ranking of the “case configurations according to relative risks” (p. 234) of a dependent variable (such as the risk of being imprisoned) in comparison to a series of independent variables (such as family status, recidivism, location). The method also allows for the comparison of the “relative prevalence of particular categories of each variable amongst the lowest and the highest between them” (p. 234).

An analysis was carried out in order to ascertain the case configuration of the relationship categories pertaining to siblings, parental and spouses, as compared to the seriousness of offences committed mainly including offences related to violence (homicide; person, robbery; sexual and other violence); burglary and drugs (possession and trafficking). This analysis looks at whether the family relationship type results in a higher or lower probability of committing a serious offence.

The results in Table 7.3 indicate a higher than median risk for family offenders to partake in serious offences, which is highlighted by 50% risk for the parental relationship, and 52% risk for the siblings relationship. Siblings namely brothers thus have a slightly higher risk of partaking to serious crimes than a parental relationship (predominantly father-son). However, the difference between the categories grows larger when the siblings also have a parent who is an offender, resulting in a risk rate of 55%. The risk grows in turn when an offender whose siblings and parents are involved in serious crimes, also marries/cohabits another offender, jumping 5% from the siblings only category and 7% from the parents only category.

Table 7.3: Seriousness Conjunctivity for relationships: siblings, parental and spouses

Siblings	Parental	Spouses	Seriousness Conjunctivity	Cases
1	1	1	0.57	143
1	1	0	0.55	318
1	0	0	0.52	570
0	1	0	0.50	258

Note the categories 0 or 1 indicate presence of the particular family relationship

In summary, the conjunctive analysis of case configuration identified the increased risk to commit serious crimes as more relationships (vertical and horizontal) are built within an offender’s lifetime. From a parental aspect, seriousness increases when siblings are involved, and even more so when spouses are included in the crime family. Findings from Chapter 6 show that having a restrictive relative partaking to crime could act as a “crime promoter” and the risk is augmented as the size of the crime family increases. Also, since theft, robbery and drugs seem to be specific to the intergenerational cohort than accounting for findings from the analysis presented here, one could argue that increased risk could also possibly influence to

some extent the gravity of criminal activity at the individual level. This said, the analysis presented here does not investigate the temporal sequence of risk and mediating factors linked to crime continuity.

The following section focuses on the 2-node structure being the most frequent structure and the particular reality of the 10+ node structure examining convictions, recidivism records and exploring offending heterogeneity within a crime family.

7.5 The 2-node and the 10+ node structures

This section provides the reader with an analysis of two of the structures identified in the mapping exercise outlined earlier in this chapter. The 2-node structure with 409 family trees dominates the intergenerational cohort. It is mainly composed of restricted relationships either horizontal relationships between siblings predominantly brothers or vertical relationships between father-son. The 10+ nodes structure which structure features in a relatively small number of families tends to be unique in the number of nodes they hold; ten to fifty four nodes represented by 154 inmates mapped in 9 crime families. Also, the restricted and extended relationships in this structure represent a blend of horizontal and vertical relationships attesting an association of convictions between family members. Such relationships become more complex attesting the concentration and continuity of offending particularly in the *çorma*.

7.5.1 Crime patterns

An overview of convictions served by inmates belonging to the 2-node structure and the 10+ node is presented here through the use of main-offence category. Recidivism analysis of the 2-node and the 10+ structure was carried out in order to investigate the intensity of offending within these two structures by examining re-convictions at CCF. This is followed by a more in-depth analysis of crimes committed by different members within the same crime family specifically focusing on the convictions served by a parent and his/her offspring for the 2-node structure.

7.5.1.1 Crime types and recidivism.

The incidence of convictions registered for violence against the person, robbery and drugs register quite similar frequencies for the 2-node. Also, this consolidates findings that brothers are inclined towards serious offences. However, when comparing the drug offences for the 2-node (15.1%) and 10+ (7.5%) node families one notes that the drug phenomenon is more pronounced in 2-node which is predominated by the presence of siblings. The findings presented here also indicate that the intergenerational cohort exhibits distinctively different crime trends from the general prison population, even more so when one considers the absence of attempted offences registered within the 10+ node.

Moreover, analysing recidivism trends by *family tree* size is necessary to study other potential risks in crime continuity, in light of findings outlined earlier in Chapter 6 claiming that recidivism for the intergenerational cohort is higher than of the non-family component and that the size of the family increases the prevalence of convictions at the individual level. The individuals belonging to the respective family structures are more likely to be recidivist rather than first time offenders irrespective of cohort alliance. The proportion of offenders who are recidivists in the larger families is much larger than among the 2-node cohort. In summary, the individuals belonging to the 10+ node show a clear recidivist pattern. Findings here are to some extent similar to earlier claims from the Putkonen et al. (2002) and (2007) studies highlighting that, children of recidivists' parents are at a greater risk of being involved in crime and violent offending.

The prison setting per se could serve as a means of networking between prisoners and eventually families of prisoners through visiting hours¹²⁴. Thus this type of social interaction might indicate some sort of collusion between individual inmates which consequently may possibly encourage crime continuity. In summary, findings from the analysis carried out here, in conjunction to findings outlined in Chapter 6 particularly those claiming the intergenerational cohort is more crime prolific, shows high rates of recidivism, serves longer incarceration sentences and that size of family increases the prevalence of convictions at the individual level, may possibly indicate that intense conviction patterns act as risk or mediating factors in the cycle of crime continuity. This could be explained in terms of “readiness to offend” (Ekblom, 2010) that is the presence of constructs that promote crime, accommodating

¹²⁴ Visits to inmates are held in specific visiting rooms assigned per divisions and during the allocated visiting hours families/friends of inmates meet.

a potential accumulation of risk factors acting as causes of causes (Wikström, 2009) subsequently limiting discontinuity in offending.

At this stage an investigation on the variation of the offences perpetrated by different members within the same crime family is necessary to explore how much offending heterogeneity exists within crime families.

7.5.1.2 Offending heterogeneity.

The analysis presented below takes into account conviction tickets representing correlations of convictions of parents and offspring for the 2-node structure being the most dominant familial presence. The analytical process employed here was filtered by 2G since its presence was noted across all decades suggesting a degree of continuity from one generation to another potentially including fathers and sons.

A closer look at the offences perpetrated by different members belonging to the same crime family is aimed to explore similarities and differences in convictions within families. The focus here is relationships tagged by the presence of parents and offspring representing two generations specifically for the 2-node structure. Of the 60, 2G-2node parent-offspring relationships that represents, 25 families had one offence in common (parent and child) which translates to 42 percent of these families. There were 292 offences registered in total between the 60 families, 71 incarcerations were accounted for by the 25 families that had similarity cases. A detailed analysis shows that those involved in the similar crime patterns cases have a very high rate of occurrence. In the 25 families, nine (36%) showed that all offences commissioned were of the same category, which relates to the situation where all offences of the offspring were the same as those of the parents, even if occurring at different times. If the analysis includes all those who had more than half of their offences the same as those of their parents, the figure doubles to 72%, showing that there is a high chance that offenders follow the same pattern as their parents. Offenders are known to commit different types of crime, yet findings here show that offenders belonging to crime families commit similar offences and tend to follow similar career paths in terms of offence type. This could be explained in terms of potential learning (*modus operandi*), family members serving as a crime network in planning specific criminal activities or even through co-offending.

In summary, whilst nearly half of the families where a parent-offspring relationship are found for 2G-2nodes, the probability for convergence of similarity in category type of offence is high as 72% of these families show the same offences being committed. These findings could be explained in terms of Abela's claims (1991, p.47) that Maltese parents have more "hold over their children life and behaviour". Thus, in this respect this exercise of social control could act as a "crime promoter" rather than a "crime preventer" (Ekblom, 2010). However, the analysis carried out here does not take into account the quality of relationships and the amount of time parents spent with their children.

The section below takes the analysis of transmission risks to crime continuity further by exploring exposure to crime as a risk to intergenerational continuity of convictions across generations of Maltese families. This is done through investigating convictions served for crimes committed by related co-offending partners, exploring the concept of "cumulative learning" and analysing the timing between convictions. However, it is important to note that this study does not take into account the temporal sequence of risk factors and neither does it investigate actual learning processes potentially influencing the dynamics of crime continuity as risk or mediating factors.

7.6 Exposure to crime through Co-offending

The discussion presented here stems from studies that claim that co-offending between parents and children is rare (Farrington et al., 1996, 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997) whilst it's more likely to involve siblings as co-offending partners, belonging to similar age groups and sharing similar backgrounds (Farrington & West, 1990). However, there are socio-cultural constructs that could accommodate co-offending in Malta. These include the closed family ties, strong sense of familial identity, geographical proximities and the need to support the family.

The main tenet of this exercise is to focus on examining the conviction tickets awarded to co-offenders whose accomplices belong to the same crime family. Co-offending convictions were filtered by sentence date, court delivery sentence, and type of crime and eventually by family tree (as per *ig_no*) so as to identify co-offending by partners belonging to the same crime family. This section focuses on the analysis of all co-offending tickets (697; identified in section 6.3.2: Chapter 6) committed by at least two individuals belonging to the same crime family identified by an *ig_no*, by crime type (main offence category) and relationship type of

the partners in crime. Also, since the combination of relationships identified in the *family tree* structures is extensive, the relationships were grouped in a way (as explained in section 7.3) that eased explanation and interpretation of findings.

Siblings (460), parents-offspring (386) and spouses (96) are the three most dominant relationships featuring in co-offending incarceration tickets in which partners in crime thus turn out to be restricted family members (Figure 7.5).

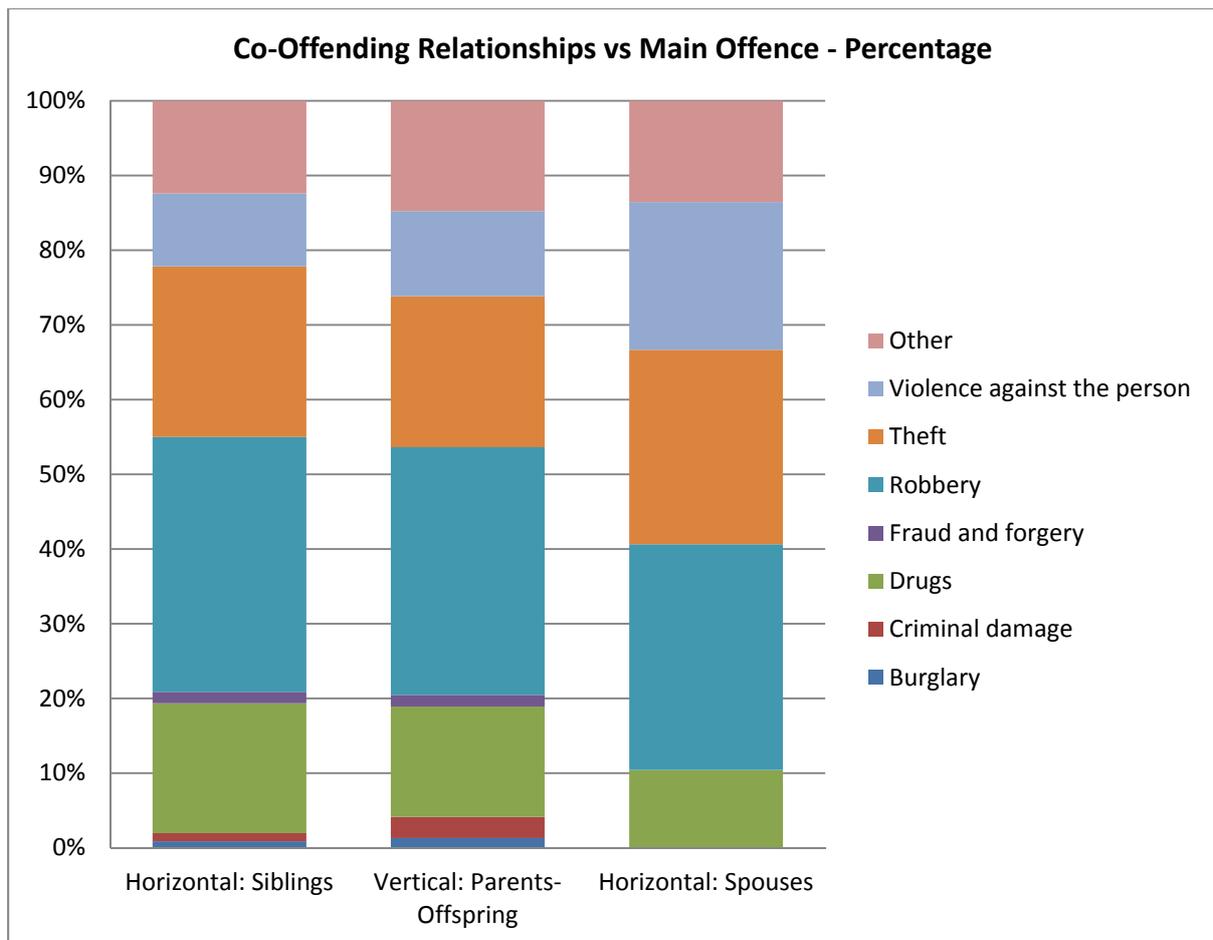


Figure 7.5: Co-offending by main offence category and relationship

Such findings to a certain extent direct one's attention to some sort of social interaction between individual inmates and possibly exposure to crime. However, this can be furthered through exploring timing of convictions between related inmates and studying exposure through geographical proximity so as to examine for example whether parents and siblings shared the same household. The latter also takes in investigating social learning whether direct or indirect through exposure to criminal restricted relatives. The spouses' factor identified in the

investigation presented here, builds on the concept of the fusion of crime families linked through marriage or partnership or parenthood. In other words, co-offending posits a risk to the continuity of convictions probably compounded by factors related to partner choice, marriage and closed-ties with family origins and geographical proximity in the Maltese islands.

Robbery, theft and drugs are the most dominant crimes committed by restricted family members as co-offenders. A closer look at Figure 7.5 clearly indicates that the co-offending patterns of siblings are very similar to the co-offending patterns of parents-offspring. Interestingly, violence against the person features more in co-offending by spouses. This said, taking into consideration the findings pointing towards specific crime trends for the intergenerational cohort (Chapter 6), and then the findings presented here once again point towards an inclination for crimes which require more planning and organisation. In this context one could explain the incidence of robbery, theft and drug offences by co-offending related partners. Additionally the findings shift one's attention to the family serving as a network through which one finds trusted accomplices such as a sibling, parent or spouse whom are either organisers or partners in crime. In a closed-knit community such as Malta this could be explained in terms of the fact that if any one of the family member is likely to be identified as a suspect, the probability for one to name and shame a family member and even more so a close relative is less likely to happen. In summary, co-offending between restricted family members could be considered as a risk factor mechanism. This said future research could explore further the potential organised crime trends in crime families in view of co-offending as a criminal activity between trusted related partners.

The parent-offspring co-offending occurrences identified here contrasts starkly with studies outlined earlier in this section, a phenomenon which could be instigated by partner choice and eventually marriage in the Maltese islands. Findings here could be linked to family and socio-demographic factors. The family provides trusted partners and serves as network for crime. Also geographical factors related to proximity, layout of towns and socially disorganised neighbourhoods, hosting a concentration of offenders and potentially crime families, could contribute towards co-offending. Thus, strong familial ties foster trust and provide access to resources, whilst the neighbourhood could also provide motivational situations that also act as "crime promoters" indicating that crime continuity could be closely linked to "readiness to offend" (Ekblom, 2010). However, a more in-depth analysis taking in other risk factors such as education, employment history and neighbourhood factors could yield more information about whether crime continuity is sustained through "teaching" or through "readiness to

offend” (Ekblom, 2010). Also, the latter is closely linked to the concept of “crime promoters” including relatives in crime, co-offending partners and issues related to naming and shaming likely to represent the “causes of causes” (Wikström, 2009) in crime continuity.

7.6.1 Exposure to crime and cumulative learning

The analysis carried out here focuses more in-depth on the effects of exposure to crime on an individual’s criminal activity investigating the concept of “cumulative learning” (Sampson & Laub, 1990) where it is claimed that children who are frequently exposed to crime tend to perceive this activity as a “normal” conduct. The focus here is on studying the number of convictions served by parents in the light of the number of convictions served by their offspring.

An analysis of 292 offences committed by the 2G-2-node tagged by the relationship parent-offspring (60 crime families in total), for every conviction committed by the parent, the child commits 1.4 offences. This was rendered through an analysis of the relative family code and each offence committed by the parents and the offspring within those families. In effect there were 170 offences committed by offspring as against the 122 committed by the parents. In this respect, children are more crime prolific as compared to their parents which could be explained in terms of Sampson and Laub’s (1990) concept where children internalise crime as a “normal activity” potentially stimulated by other risk or mediating factors that present themselves as “cumulative disadvantages” (Sampson & Laub, 1990) augmenting the risk for crime. Also, the rate of convictions of offspring could be explained by the pronounced presence of siblings’ convictions within the 2-node structure and also across all family structures. However, one has to explore more the possibility of social interaction between parents and offspring such as through concentrating on timing of convictions of different family members and studying whether related offenders lived within the same household.

7.6.2 Timing between convictions

The influence of convictions and the potential link to the continuity of crime across generations of families calls for an analysis concentrating on temporal proximity in the incarceration of relatives so as to explore further exposure to a criminal restricted relative. The analysis carried

out here takes into account convictions tagged by the presence of parents and offspring for the 2G-2node structure.

An analysis of the cases where relatives were imprisoned based on a temporal attribute as defined by who entered prison first, shows that the 2G 2-Node component exhibits an expected precedence for the parent being first. 56.5% depicts precedence for the parent being the initial entrant. This is followed by a 30.6% same-time entry which could indicate some sort of interaction between parents and their children during their incarceration period at CCF.

Additionally 12.9% represent a scenario where children preceded their parents (Refer to Figure 7.6). Interestingly, this situation elicits the need to study further why parents presumably follow children into crime, though such may not necessarily be the case as it may be that it took longer for the parents to be apprehended, having had a longer run of a life in crime prior to incarceration. Also, such could be linked to the finding related to the ratio of convictions of parents and offspring outlined earlier. Furthermore, of the 8 cases where offspring preceded the parent into prison, 38% had a time interval of 1-3 years, 2 had a 6-7 year interval and one had a 17-year interval, indicating a rare indication when an elderly parent could have followed the offspring into prison. This said, further studies are suggested on such occurrences to understand the dynamics through which parents potentially follow their offspring into crime.

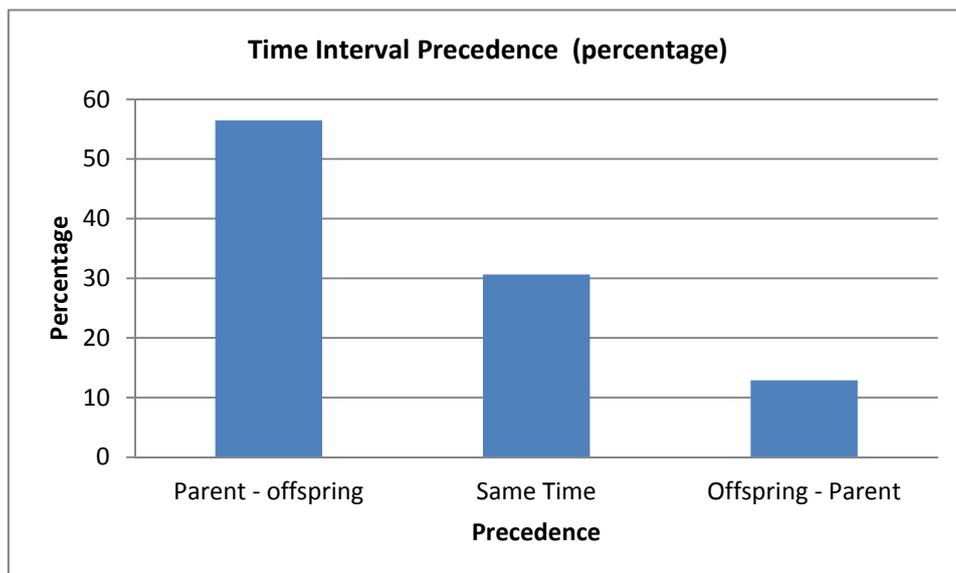


Figure 7.6: Time interval precedence

An analysis of the period of precedence shows that 71.5% of the parent-precedence cases occur between 1 and 15 years before the offspring are incarcerated. Twenty three percent of these occur in close-proximity of less than 5 years. At the other end of the scale, 28.5% were incarcerated at least a generation apart ranging from 16 years to 54 years (Figure 7.7). This could indicate that these cases refer to convictions where the child likely followed the parent into crime once they enter their early adulthood or many years after their parents had stopped their involvement in crime. Findings here, indicate to a certain extent some sort of interaction between a parent and his/her child which potentially posits a risk of crime continuity. However, further investigation is needed to evidence whether or not restricted relatives as individual offenders had the opportunity to interact with each other. The latter is accommodated through studying how many parents and offspring lived in the same household which analysis is taken in Research question 4 (Chapter 8).

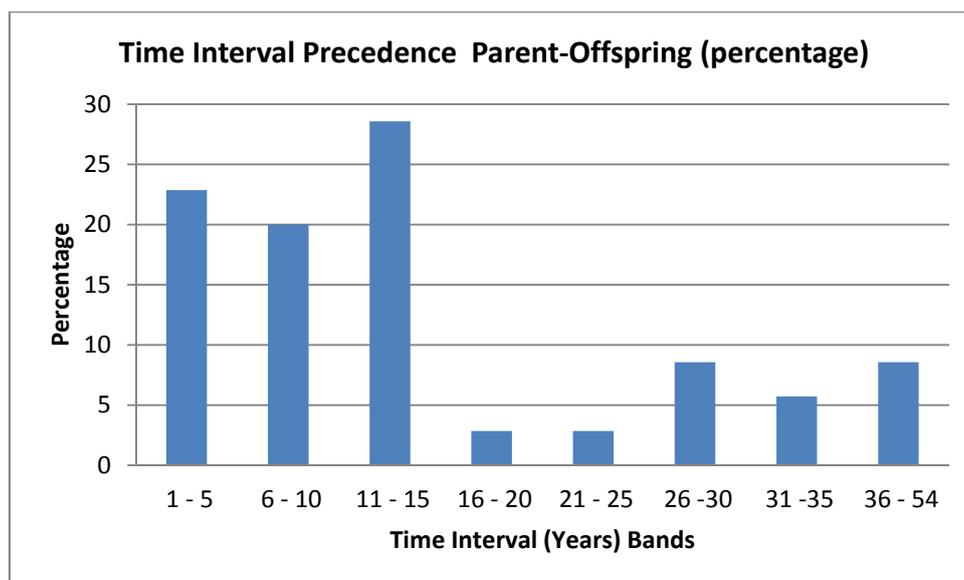


Figure 7.7: Time interval for parents preceding offspring

The section below analyses convictions served by siblings during the same year of incarceration at CCF.

7.6.3 Siblings at CCF at the same time

An analysis by decade shows that the likelihood of a sibling being incarcerated whilst another sibling or more reside in CCF grows linearly every decade, having increased from 4.2% (%)

siblings' convictions of total whilst siblings in CCF) in the 1950s to 45.1% in the 2000s. This is a very interesting outcome, where of the entire 10,888 convictions served at CCF, 4,156 were served by siblings. Also, over time the dataset allowed for an increased possibility for identifying related inmates.

As identified in other sections of this analysis, this is a very high rate, something that is backed by Figure 7.8 which depicts the percentage increase and a trend-line analysis outcome that shows a steep increase in the % component of siblings being incarcerated at the same time. This ten-fold increase between the 1950s and the 2000s is indicative of the fact that most incarcerations are related to siblings who spend a significant time in prison along with their brothers mostly and who have may be enhancing their “skills” during their stay in prison. Such findings point towards a scenario which evidences some sort of social interaction between restricted relatives, in this case siblings, who partake to crime during the stay at CCF irrelevant whether as lone offenders or as co-offenders. The analysis presented here is taken further by exploring how many siblings lived at the same address in Research question 4 (Chapter 8). The latter aims to explore, geographically, the dynamics related to social interaction between related inmates belonging to the same crime family.

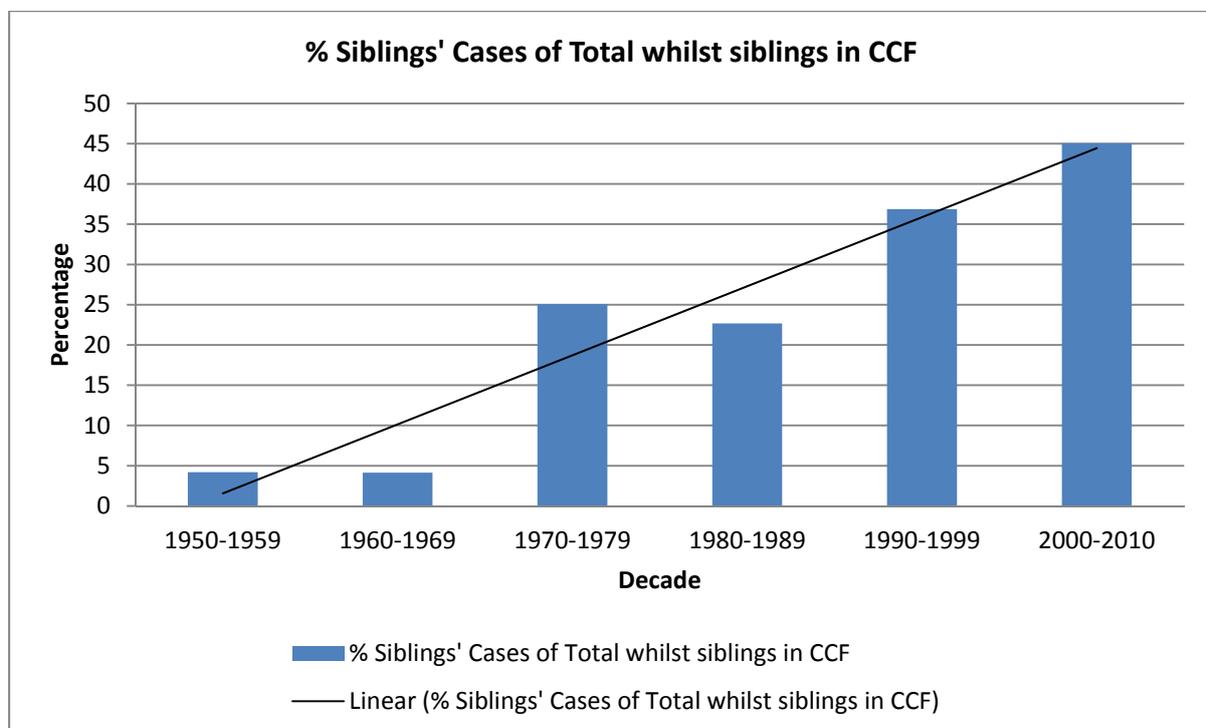


Figure 7.8: Siblings at CCF at the same time

When one analyses individual siblings and their convictions, 1,059 siblings were identified between 1950 and 2010, who between them had a total of 2,648 convictions. Of these, 616 siblings, accounting for 901 convictions, were in the CCF at a time when one or more of their siblings were also serving sentences in the CCF.

Findings related to examining the temporal proximity of convictions served by siblings and time intervals between parents' and offspring convictions indicate some sort of social interaction and collusion between offenders belonging to the same crime family. Consequently such a scenario is likely to augment the risk on crime continuity and influence criminal activity on an individual level. However, this calls for a closer examination of other risk factors to crime continuity which follows in the following chapter.

7.6.4 Summary (Research Question 3)

This section reviewed the relationships identified in the mapping exercise (carried out in Research Question 2) in terms of offending, seriousness of offending, co-offending, exposure to crime and recidivism focusing mainly on relationships tagged by the presence of siblings, parents and spouses. Also, the 2-node structure and the 10+ node structures were examined further to examine in-depth the characteristics of restricted and extended relationships identified in the family trees.

Drug offences are closely linked to individuals within the 2-node. The high rates of violence in 2-node and even more so in the 10+ once again highlight the use of violence in crimes specific to the entire intergenerational cohort. Interestingly, as the number of nodes increases so does proportion of recidivists within the larger structures. Nonetheless, findings presented here capture the crimes that are only sanctioned by a prison term whilst the method adopted here to study recidivism could simplify the complexity of the phenomenon since inmates could have had other criminal records not accounted for in measuring recidivism. Also, findings from the conjunctive analysis of case configuration indicate that the increased presence of related inmates, not only, poses a risk to crime continuity as outlined in Chapter 6 but also, put forward an increased risk to commit serious at the individual level directly or indirectly.

The analysis of convictions tagged by relationships involving siblings, parental and spouses revealed that the sub-category "other-justice" registered the highest frequency mirroring trends

of the intergenerational cohort and the general prison population. Also, the crimes theft and robbery were noted across all three relationships whilst violence is more pronounced in parental and spousal relationships. Siblings as brothers are more crime prolific and also very likely to engage in serious criminal activities such as theft, violence against the person, robbery and even more so in crimes related to drugs. Van de Rakt et al. (2009) focusing particularly on siblings' criminal activities within the family claims, that, as the convictions of siblings within the family accumulate, then the probability of offending for children within that family also increases.

Interestingly, the findings from this study point towards a specific crime trend for the intergenerational cohort in Malta, a phenomenon which is undoubtedly understudied as outlined in the reviewed literature. In addition, the co-offending instances analysed show that siblings are more likely to be involved in co-offending activity thus possibly brought about by a situation of learning by imitation (Farrington et al., 2001) or because siblings share similar backgrounds (Van de Rakt et al., 2009). Findings related to co-offending by siblings corroborates other research such as that by Farrington (2002, 2011) where it is claimed that siblings' co-offending activity could be classified as a mechanism that explain why crime runs in families. However, parents and their children, as well as spouses, are also involved in co-offending activity as outlined here. Such a finding is deemed interesting considering that a body of research claims that co-offending between fathers and sons is rare (Farrington et al., 1996, 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997) contrasting with Van Egmond (1994) who claims that boys are "crime students" of their fathers in co-offending activity. In summary, co-offending activity involving a restricted family a sibling, a parent/offspring and/or a spouse/partner could be considered as a risk or mediating factor to crime continuity across Maltese offenders.

Also, children are more likely to follow their parents' entry into CCF and tend to be more crime prolific than their parents. Additionally, children tend to serve convictions for crimes similar to those crimes awarded by an incarceration term for their respective parents. The time intervals between convictions of parents and their children and the study of siblings serving convictions during the same year at CCF indicates some degree of social interaction between restricted relatives in crime. This said, the closed ties with familial roots, the control exercised by parents over their children and some sort of collusion between related inmates whether within the community or at CCF points towards the possibility that these mechanisms could have a role in crime continuity. This could be instigated by the limited possibility for individuals in Malta

to detach from one's roots whether restricted or extended and thus subsequently restricting one from "escaping the family tradition" (Tabone, 1994). Consequently this could in turn render it difficult for one to escape from the criminogenic environment.

The mapping of offences onto the family structures and the in-depth analysis of the 2-node and the largest structure the 10+ satisfies the objectives of Research Question 3 and adds to the analysis related to the second research question concerning the identification of patterns in the intergenerational continuity of offending in Malta. This said however, findings here present the node structures as a statistical entity and thus do not allow for the analysis of interpersonal relationships through which social networks between prisoners and their families could surface.

7.7 Conclusion

The discussion presented in this chapter focuses on the second research question which set the groundwork for the discussion that presents the findings from the third research question which follows.

The study of structures shows that 65.8% of the families of the intergenerational cohort fit into the 2-node component featuring a restricted family structure. Thus, the characteristics of the families in the 2-node structure predominate and shape the characteristics of the intergenerational cohort to a great extent. The relationships in this structure are mainly siblings attesting a horizontal continuity (H) within a generation or a father-son relationship representing a vertical continuity (V) across two generations (2G). It is to be highlighted that these two relationships also dominate the other nodes structures attesting a combination of vertical and horizontal relationships inclusive also of other restricted relationships such as spouses and extended relationships with in-laws and cousins. Overall, the dominant relationship is based on siblings, mainly brothers followed by parental relationships (father-son). Additionally, as the size of the family increases the presence of spouses becomes more pronounced.

On the other hand, siblings as brothers have a bigger share in crime (19.2%) followed by the father-son relationship (8.9%). Siblings-brothers are, not only crime prolific, but also more involved in serious crimes such as violence against the person, robbery, theft and drugs. Drug trends follow similar patterns of the general prison population and increased filed police reports over the last two decades. However, findings here show that drug related offences are more

specific to the 2-node structure envisaged by the predominance of siblings within this structure and the increased drug related offences in the past two decades reflected also in the general prison population and the filed police reports. The three most dominant relationships in crimes committed by co-offenders belonging to the same crime family are siblings, parental and spouses. It is noted that violence is an integral feature to crimes such as robbery whilst spouses, interestingly, tend to get more in violent offences as co-offenders. In summary, when one considers findings presented here in the light of the comparative cohort analysis to identify crime patterns; robbery, theft and drugs are more specific to the intergenerational cohort.

As the number of nodes increases, the interconnectedness of families involved in crime is more likely whilst the restricted and extended relationships between individuals in crime become more complex. Interestingly, the 5-node, 6-9 node and the 10+ node structures together host one quarter of the individuals in the intergenerational cohort who were at CCF between 1950 and 2010. The 10+ node structure, particularly the *çorma* with individuals coming from five crime families fusing into one large structure hosting 54 nodes across two to five generations, represents a combination of vertical and horizontal relationships. The *çorma* attests to a concentration of siblings, parental as well as spouses or partners relationships. This represents the fusion of restricted families into extended families and as the number of nodes increases the proportion of recidivists in the 10+ structures becomes larger when compared to the proportion of recidivists in the 2-node. This is indicative of a scenario where as the number of nodes increases so does the probability in the continuity in offending as attested by the concentration of convictions within the larger families, rendering one more crime prolific. Also, the increased presence of relatives in crime in one's life course directly or indirectly influence the seriousness of offending as the probability to engage in serious offending is raised by the increased size of the crime family.

Children are likely to commit crimes similar to those committed by their parents, indicating potential learning through exposure to crime and challenges related to detaching from family roots in a closed-knit community such as Malta. The family could be considered as a network in which one finds his/her trusted crime partners as co-offenders, organisers or through the provision of alibi. This could be explained in terms of restricted family members, particularly in the Maltese social context, whom could also serve as a guarantee. In other words, family members tend to protect one another more and since the accomplices are persons whom one can trust the probability for one to name and shame a family member is less likely. Nonetheless, another scenario could prevail where crime could serve as a source of family

income considering that the individual in the intergenerational cohort is more crime prolific, has higher recidivism frequencies and tends to serve longer prison sentences.

A series of potential crime promoters, as risk or mediating factors, could explain the continuity of convictions across generations of Maltese offenders. These include i) having a sibling, parent and/or a spouse/partner in crime ii) marriage or partnership facilitating the fusion of individual families into larger crime families iii) intense conviction patterns and seriousness of offending and iv) exposure to crime through co-offending, “cumulative learning” and some degree of social interaction with restricted relatives in crime. However, it is highlighted that the temporal sequence of these risk factors is not accounted for here and the actual “learning processes” are not explored. On the other hand, these risk or mediating factors are empirically intertwined and not necessarily exclusive to the intergenerational transmission of crime (Besemer, 2012). The factors outlined here, together with other multiple risk factors not investigated here, could directly or indirectly explain crime continuity through a constellation of factors that activate crime operating as “causes of causes” (Wikström, 2009) and/or as cumulative disadvantages (Sampson & Laub, 1990). Also, these are likely to be linked to the concept of “readiness to offend” (Ekblom, 2010) promoting predisposition to offend at the individual level and the subsequent presence of crime across generations.

Considering that the insularity of the islands and that, relationships between family members are shaped by its size and socio-economic constructs, the following chapter takes the analysis a step further through studying other potential risk and mediating factors to understand the cycle of crime continuity in fulfilment of the third research objective of this Malta study.

Chapter 8: Transmission risks of intergenerational offending

8.1 Introduction

The results presented in this chapter concentrate on intergenerational mechanisms adopting a risk/mediating factor approach which is intended to identify factors that could influence the risk of intergenerational continuity of convictions focusing on the intergenerational cohort as a subset of the prison population. The focus here is on the third research objective from which two research questions support this research phase.

The first section of this chapter analyses spatial factors focusing on an analysis by residential location for the intergenerational cohort followed by an in-depth examination of the spatial location of the 2-node and 10+ node structures. A comparison with the general population is completed so as to examine potential residential changes using census data and to provide the reader with a wider perspective of the concentration of crime families in the different localities represented by Local Councils. It is noted that 68 local councils constitute the Maltese Islands (identifiable using the NUTS5 zone classification; see Glossary). A mathematical exercise used for risk analysis is employed to investigate the proportional representation of crime families in towns based on national rate calculations for the 2000s. Also, the potential impact of the neighbourhoods on crime families is investigated through the examination of the number of days the individual offender spent or is spending in prison and the days one spends in the community. The potential for social interaction between related individuals is also studied spatially through their geographical proximity. This is followed by an exercise concentrating on whether there is a spatial overlap between the residential location of crime families and the offender and non-offender hotspots (data for the 2000s) identified in the Formosa (2007) study as well as to verify whether crime families live in the poverty pockets as analysed through welfare data using data for 2003.

The need to analyse spatial factors was deemed important for this study as posited by Shaw & McKay (1942) in their social disorganisation theory, that offenders and offending can be analysed through the study of the location offenders reside in as crime is location bound. Also, this was driven by other research claiming that a series of environmental factors; such as geographical proximity and criminogenic exposure (Wikström, 2009, 2010), living in areas

laden with socio-economic problems (Farrington et al., 2009; Sampson, 2006; Wilson, 1987) and that in a “bad environment” one is more crime prolific and neighbourhoods are populated by residents sharing similar characteristics (Falk & Fischbacher, 2002), could be linked to the intergenerational transmission of crime (Farrington et al., 1996). In a small state such as Malta, the proximity of persons related to each other could be expected to be high (Formosa, 2007) and the analysis carried out here sought to understand whether crime families were dispersed or concentrated in residential hotspots but at no point does it focus on aetiology of intergenerational continuity. In summary, the findings presented here through graphical imagery in the form of maps, show whether crime families live in close proximity and whether they live in established offender, poverty and intersecting hotspots.

Additionally, multiple risk factors such as the environmental factors outlined above and constructs such as low occupational status and poor academic background (Farrington, 2002, 2011; Farrington et al., 2001) could simultaneously act as direct/indirect transmission risks in intergenerational offending. Thus, the second part of this chapter focuses on individual and social risk factors, mainly literacy, school type, employment and unemployment as outlined in Research Question 5. The latter is facilitated through a comparative analysis with the general population of the Maltese Islands using Census 2005 data and welfare benefits information for the decade 2000-2010 with the 2005 being taken as a mid-point. The analysis carried out is based on information representing individual inmates between 1950 and 2010. Also, it is highlighted that the comparative analysis between the intergenerational cohort, non-family component and general prison population aims at examining the prospective transmission risks that could be linked with continuities of offending.

Research Question 4:

Are there specific areas in the Maltese islands that are more likely to host families with an offending history? Is there a relationship between the residential location of crime families and the distribution offender and poverty hotspots in Malta?

The focus here is on the residential location of crime families given that the residential locations of the individual offenders have been examined in a previous Malta study (Formosa, 2007). Also, the offender and poverty hotspots identified in the Formosa study are used to carry out a

spatial comparison vis-a-vis the identified hotspots for the 2000s decade. The analysis carried out here does not explore whether crime families or individuals belonging to crime families, move in and out of offender and poverty hotspots and whether or not potential migration trends influence one's criminal propensity. It must be noted that this body of knowledge emanating from this analysis revolves around examining the residential location of the intergenerational cohort and offers indicators about environmental factors as potential risk and/or mediating factors to intergenerational offending. This is limited by the fact that the study did not review residential location of every individual inmate over his/her entire life span. The latter would have consolidated the findings presented here. Thus, one needs to be aware that the strength of findings is influenced by this analytical factor.

8.2 Residential location: an analysis by family tree size

This section gives an overview of the residential location of all individuals belonging to the intergenerational cohort. The information is analysed at NUTS 5 level.

The Formosa (2007) study had identified the councils of Bormla, Valletta, and Gzira (the old towns of the Grand Harbour), Qormi (suburb of the Grand Harbour) and Birkirkara (Central) as offender hotspots when studying the concentration of offenders at the individual level (1950-1999), versus the general population at NUTS 5 level. Crime families live mostly in Valletta and Bormla confirming trends in the Formosa (2007) study with regards to the residence base of Maltese offenders¹²⁵. In turn, the third highest locality identified here is that of Qormi followed by Birkirkara which ranks fourth.

Furthermore, individuals belonging to the 2-node structure live in Qormi¹²⁶ (7.8%), followed by Valletta (6.5%), Birkirkara (6.3%) and Bormla (5.2%). A close look at the residential locations identified for the individuals in the 10+ node structure clearly reveals a shift in residence patterns when compared to the 2-node structure; 24.5% reside in Valletta and 23.6% live in Bormla. This trend confirms the trends identified in the Formosa (2007) findings in that

¹²⁵ All CCF inmates between 1950 and 1999.

¹²⁶ Birkirkara and Qormi are two of the largest localities in the Maltese Islands, whereas Valletta and Bormla tend to be classified as localities hit by the ageing population phenomenon and with their population decreasing gradually across the last three censuses.

Valletta and Bormla host the largest share of Maltese offenders. Also, a closer look at the *ċorma* (54 nodes), shows that, interestingly, individuals belonging to this largest family structure identified in this study opt to live either in Valletta or in Bormla.

Additionally, Valletta experienced an influx of crime families except for the 1970s-1980s and the 1990s-2000s (50s-60s: 2.5%; 60s-70s: 5.9%; 70s-80s: -7.6%; 80s-90s: 5%) whereas the general population for Valletta experienced a decline across all the decades mainly linked to factors such as population ageing and out-migration to other localities. A similar trend is also observed for Bormla except for the decrease in the 1960s-1970s which could be linked to the fact that Bormla as a town suffered from a considerable reduction in number of residents in the post-war period and is still experiencing a decrease (from the 1960s to the 2000s), particularly due to the closure of the British bases in 1979 and the ship-repair/building industry, resulting in an increasing ageing population.

The population decrease in Valletta and Bormla since the 1985 census exercise (NSO, 2012) reflects demographic factors such as population ageing, poor housing conditions, socially disorganised neighbourhoods and the social stigma associated with the old harbour towns. However, the same cannot be said about the residential preferences of crime families for the same decades in Valletta and Bormla. In summary, Valletta and Bormla are hometowns for the typical Maltese inmate, for crime families and even more so for the larger crime families (10+ node). The examination of offender and non-offender hotspots and the poverty pockets of Valletta and Bormla down to street level analysis, takes the investigation a step further (Refer to Section 8.7). This said, as offenders belonging to families in crime concentrate in a locality, the dynamics of crime within that locality change in a way that continuity in offending is propagated across generations of families. Also, different families could influence each other since the closeness between residences facilitates networks of crime through proximity, peer factors and relatively small sized towns or villages. The physical layout of Maltese towns could accommodate labelling of families. These together with factors such as those related to geographical proximity, may possibly ease the “role” of the crime promoter (Ekblom, 2010) even more so for Valletta and Bormla both of which suffer from social stigma.

Furthermore, it is noted that the study of clusters of crime families in specific localities is not complete using the counts analysis approach presented in this section. The following section examines the proportion of crime families in Maltese towns for the 2000s, using the Craglia et

al. (2000) method. Thus a comparative cohort analysis based on incidence rate of the offender presence will examine further the potential concentration of crime families in specific towns.

8.3 Analysing the proportionality of Family presence based on a national rate calculation

A risk assessment model was created based on the Craglia et al.'s (2000) risk assessment methodology that compares each town's information with the national rate. The method brings the different variables under study on a level base, which ensures that when analysing the presence of a phenomenon (for example offences or family presence) in a specific town, that phenomenon would have the same chance of locating there as in any other town. The method is based on the establishment of a national standard rate for every variable analysed, which generates the number of incidences expected as based on the population of an area. Thus a small town would host the same proportion of offenders as any other larger town.

As the denominator in the standardised rate refers to the total population, when the standardised rate is calculated against a specific area, one can calculate what the expected number of incidences should be in that area.

This phase of the process is that of eliciting a standardised rate (Refer to Table 8.1) Standard Residential Rate: Intergenerational), is calculated by dividing the total incidences (in this case, the number of intergenerational members – 429 for the 2000s) by the total population of the Islands or 417,617¹²⁷ persons. The resultant standardised rate for the intergenerational component is that of 0.001 or that every area has a 0.1% chance of hosting an offender, which is termed the National rate.

A similar calculation for the Non-Family and General Prison Population cohorts results in the relative standardised rates of 0.002 and 0.003 (or a 0.2% and 0.3% chance of hosting an offender) respectively.

¹²⁷ As at the 2000s.

Table 8.1: Analysing the proportionality of Family presence based on a national rate calculation

Offender Residence vs. National Rates Methodology	
Standard Residential Rate – Intergenerational	0.001
<hr/> Total Intergenerational Grand Total	429
Total Persons	417,617
Standard Residential Rate: Non-Family	
Standard Residential Rate - Non-Family	0.002
<hr/> Total Non-Family	776
Total Persons	417,617
Standard Residential Rate: GenPop	
Standard Residential Rate GenPop	0.003
<hr/> Total GenPop	1205
Total Persons	417,617

The process is then taken to another step (Table 8.2), where each locality has a rate calculated on a base of 100 where 100 refers to the national rate (column Rate Intergenerational in the Table 8.2). This is calculated by inputting the observed incidence (in this case the number of individuals belonging to the intergenerational component) in the attribute entitled Observed Intergenerational. As the model holds the national standardised rate (Standardised Intergenerational) as well as the population count (Population 2010) of that locality, one can predict the expected number of incidences that should be present in that locality (Expected Intergenerational). In the sample shown below, Attard, which has a population of 10,682 persons, at an intergenerational standardised rate of 0.001, should host an expected 11 members of the intergenerational cohort. Attard's observed (actual) intergenerational component is that of 3 individuals. This results in a rate of 27 (out of a national 100 and shown in the Rate Intergenerational attribute) which translates in 0.3 x National Rate. The latter figure (0.27 rounded to 0.3) is further shown in a league table (partially in Table 8.3 and the complete Table 1 in Appendix 5) that lists all the rates for the Intergenerational, non-Family and the General Population cohorts. Attard's ranking is to be found in the second page of Table 8.3, which is ranked in descending order based on the intergenerational rate.

Table 8.2: Rate Calculator

Locality	Pop2010	Observed Inter-generational	Standardised Inter-generational	Expected Inter-generational	Rate Inter-generational	Comparative Rate
Valletta	6,295	36	0.001	6	557	5.6xNational
Bormla	5,569	23	0.001	6	402	4.0xNational
Santa Lucija	3,136	12	0.001	3	372	3.7xNational
San Lawrenz	600	2	0.001	1	324	3.2xNational
Isla	3,010	9	0.001	3	291	2.9xNational
Kalkara	2,863	8	0.001	3	272	2.7xNational
Floriana	2,158	6	0.001	2	271	2.7xNational
Kirkop	2,229	6	0.001	2	262	2.6xNational
Birgu	2,648	5	0.001	3	184	1.8xNational
Pieta	3,835	7	0.001	4	178	1.8xNational

Table 8.3 elicits very interesting outcomes which were not expected. Valletta is deemed the highest ranking locality for families when calculated on a count approach and when one uses the Craglia (2001) methodology, Valletta ranks highest for the Intergenerational cohort rate (5.6 x National - Table 8.3), third-highest (after Isla and Bormla) for the Non-Family rate (2.7

x National and highest for the General Prison Population rate 3.7 x National). In summary, Valletta has almost six times as many offenders belonging to the intergenerational cohort than the national rate. In turn, Bormla, which ranks second to Valletta in Intergenerational cohort rate (4.0 x National), ranks second to Isla for the Non-Family (2.8 x National) and second to Valletta for the General Population (3.2 x National) rate. Bormla, as per Table 8.3, was expected to have six intergenerational offenders in the 2000s but registered 23. This analysis depicts that Valletta and Bormla have very high rates for the Intergenerational cohort which could be explained by a presence of the larger family structures (10+ nodes).

Table 8.3 is ranked in descending order by Intergenerational RISC; however the cells for the other two cohorts are given the relative colour that reflects an in-attribute descending sorting. Further analysis of the three cohorts (Table 8.3) shows that those towns which register the national rate (green as per Table Key below) are generally few in number with a large group recording rates below the national average (blue), a small number of red cells (higher than national rates) and only one town (Valletta) depicted by a dark red colour indicating a very high rate that is more than 5 times the national rate. In the intergenerational cohort case, 14 localities returned a value of zero since no family members were registered as living in those towns.

Whilst more than half of the localities recorded below national average rates for all three cohorts, a few towns consistently registered higher rates than the national rate containing 24, 25 and 25 offenders respectively for the Intergenerational, Non-Family and General Population cohorts. Three towns, Valletta, Bormla and Santa Lucija host very high rates (5.6, 4.0 and 3.7 x National) for the Intergenerational cohorts. Interestingly, two towns, Santa Lucija in Malta and San Lawrenz in Gozo, did not feature in the exercise carried out for the 2-node and 10+ node structures, but through this exercise shows a relatively high rate for the intergenerational component. The old harbour town of Isla also has high rates for the non-family component (3.0 x National) and the general prison population (3.0 x National). However, the high rates for the intergenerational cohort (2.9 x National) is related to the finding that Isla ranks third as the 10+ node structure (based on counts). Qormi which had registered the highest frequency (based on counts) for the 2-node structure; interestingly here has higher rates (1.6) than national rate for the intergenerational rates however also higher rates than national rates were noted for the non-family and general prison population.

Table 8.3: League Table of Residential presence of Intergenerational, Non-Family and the PopGen cohorts

NUTS5_ID	NUTS5_DESP	Population	Intergenerational Offences	Non-Family	PopGen	Intergenerational RISC	Non-Family RISC	PopGen RISC
1	VALLETTA	6295	36	32	68	5.6xNational	2.7xNational	3.7xNational
5	BORMLA	5569	23	29	52	4.0xNational	2.8xNational	3.2xNational
57	SANTA LUCIJA	3136	12	12	24	3.7xNational	2.1xNational	2.7xNational
54	SAN LAWRENZ	600	2	0	2	3.2xNational	0.0xNational	1.2xNational
4	ISLA	3010	9	17	26	2.9xNational	3.0xNational	3.0xNational
18	FLORIANA	2158	6	9	15	2.7xNational	2.2xNational	2.4xNational
29	KALKARA	2863	8	6	14	2.7xNational	1.1xNational	1.7xNational
31	KIRKOP	2229	6	3	9	2.6xNational	0.7xNational	1.4xNational
3	BIRGU	2648	5	9	14	1.8xNational	1.8xNational	1.8xNational
47	PIETA	3835	7	9	16	1.8xNational	1.3xNational	1.4xNational
...	...							
14	BIRKIRKARA	22613	22	35	57	0.9xNational	0.8xNational	0.9xNational
...								
12	ATTARD	10682	3	7	10	0.3xNational	0.4xNational	0.3xNational
...								

Table Key	
Higher than 5x National	
Higher than National	
National	
Lower than National	
Absence of Incidence	

8.4 Summary: the residential location of crime families

Valletta and particularly Bormla serve as the home towns for the relatively larger crime families as represented by the 10+ node structure with a 24.5% of the individuals identified in this structure residing in Valletta and 23.6% in Bormla. These large crime family structures are indicative of a blend of vertical and horizontal relationships featuring extended family involvement in crime, through which continuity of offending persists across two to five generations of families.

Valletta is also the home town to a concentration of 2-node structured crime families characterised by siblings as brothers and vertical relationships involving a continuity of crime between two generations of families through fathers and sons. Qormi ranks first for individuals belonging to the 2-node structures whilst Birkirkara also has its share of the 2-node structure following Valletta. Birkirkara, specifically hosts the smaller crime families through which crime continuity is seen through restricted family members involving two individuals (mainly siblings) followed by a father-son relationship.

Interesting trends emerge from the analysis of the proportionality of presence of crime families in sixty eight councils based on national rate calculations employing the Craglia (2001) methodology. Bormla, Valletta and Santa Lucija host a concentration of individuals belonging to crime families as attested by the very high rates (5.6; 4.0; 3.7 x National Rate) for the intergenerational cohort. Interesting is the trend for Santa Lucija considering that the Formosa (2007) study did not identify Santa Lucija as an offender hotspot. The pronounced presence of related offenders in Bormla, Valletta and Santa Lucija could link neighbourhood factors to other possible crime promoters such as exposure to other crime families, social stigma, same constraints and a criminogenic environment (Van de Rakt et al., 2008). Thus, the concentration of families characterised by a cluster of convictions and the respective communities could both serve as activity fields (Wikström, 2008) as well as serve as networks for crime.

The analysis presented here satisfies the first part of the research question in that the residential preferences of offenders have been studied, not only, by counts as per identified address in the conviction ticket, but also, through the calculations of national rates that allow one to explore to what extent families concentrate in specific areas. This said, however findings presented in

this section do not yield information about the effects of the neighbourhood in view of the amount of years one spends outside his/her community since s/he is at CCF.

The following section aims at examining the influence of the neighbourhood on the individual offender by studying the length of days/years one has spent at CCF as against the number of days/years one spends in the community. It also covers exposure to convicted relatives by studying how many relatives live in the same neighbourhood examining relationships tagged by the presence of parent-offspring and siblings.

8.5 Understanding community influence from a presence perspective

An attempt to understand whether the community/neighbourhood has an effect on the family members' involvement in crime is difficult to carry out, however a surrogate analysis based on the number of effective days spent (presence) in the community as against those spent in prison was carried out. The time spent in prison as against the time spent outside was reviewed based on the number of days sentenced, their last age on incarceration less the number of days awarded as remission. This method needs to be further refined to include actual current age, amnesties, and the days yet to be spent, which were not accounted for in this analysis.

The analysis was carried out by identifying those individual offenders who form part of the intergenerational cohort, all their incarceration episodes and the resultant number of days in prison as well as the age of last incarceration. The observed number of lived days and those spent in prison less the remission awarded (1/3 of all sentences) were calculated and the resultant percentage not spent in prison was assumed to represent the days lived in the community/neighbourhood. The worked out example below shows the calculations employed in carrying out the investigation linked to exploring community presence.

Worked example of Percentage lifetime calculation

Case A101

Step 1: A pivot table of all the A101 cases was extracted from the database.

Step 2: Sum of Sentence Days (Sum of V6i_Sentence_days) and Maximum Age registered during sentencing (Max of V9i_Age_Years).

$$\text{A101 Sum of V6i_Sentence_days} = 1984$$

$$\text{A101 Max of V9i_Age_Years} = 42$$

Step 3: Days Lived is calculated by the number of years (Max of V9i_Age_Years) multiplied by days in a year (assumed at 365 days as this calculation is based on total sentenced days as against a calculation based on each individual date of entry and exit, which would essentially cater for leap years).

$$\text{Days Lived} = \text{Max of V9i_Age_Years} \times 365$$

$$\text{A101 days lived} = 42 \times 365 = 15330$$

Step 4: The percentage days lived in prison is calculated by dividing the number of days spent in prison (Sum of V6i_Sentence_days) by the number of Days Lived times 100.

$$\% \text{ Days lived in prison} = \text{Sum of V6i_Sentence_days} / \text{Days Lived} \times 100$$

$$\text{A101 \% Days lived in prison} = 1984 / 15330 \times 100$$

An overview of the days spent in prison for 1,134¹²⁸ (Table 8.4) individuals pertaining to the intergenerational cohort shows that at one extreme end 9 persons spent half their life incarcerated, with one individual spending 9,215 days of his 39 years (14235 days) of life or 65% in prison (Figure 8.1). At the other end of the scale, 36% had very short sentences that equate to 1% or less of their lifespan.

¹²⁸ The figure represents those for whom data was available for sentence length.

Table 8.4: Percentage Lifetime spent in Prison for Intergenerational Cohort

Lifetime Period spent in CCF	Individual Offenders	Percentage Offenders
1% or less	405	36
2% - 4%	211	19
5% - 9%	198	17
10% - 29%	255	22
30% - 49%	56	5
50% plus	9	1
Grand Total	1134	100

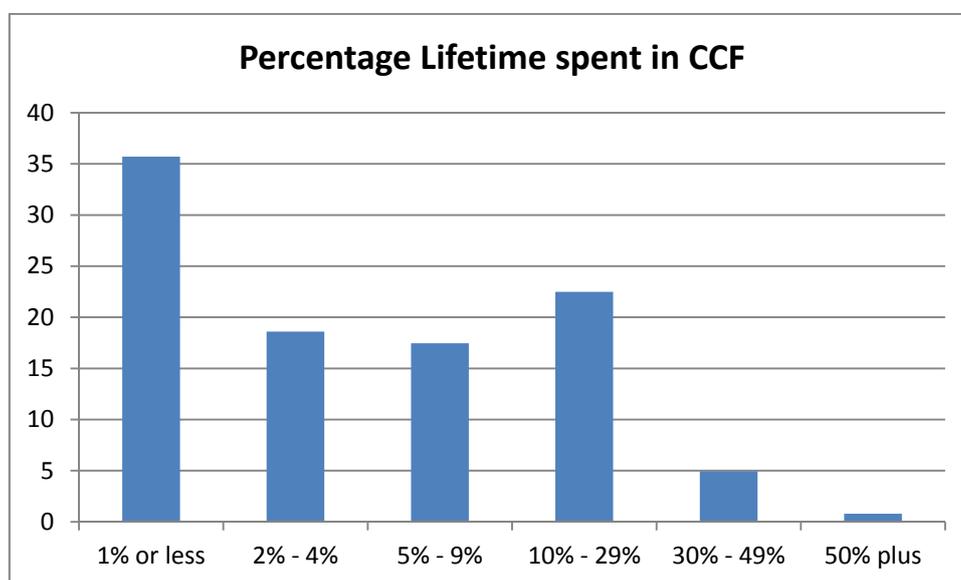


Figure 8.1: Percentage lifetime spent at CCF

Inversely, the analysis above shows that offenders spend most of their time in the community/neighbourhood where 72% (814 of 1134) of all intergenerational offenders spent more than 91% of their lifetime within the community, tentatively indicating that they have more time within the community where the influence to partake to offences is stronger than that emanating from the prison confines. Three hundred and eleven or 27% spent between 51% and 90 percent of their lifetime in the community, whilst only 9 individuals or 1% spent more than 50% of their life in prison and thus a very short time in the community. The latter group is composed of those persons who had either committed murder or had been involved in aggravated offences that result in long sentences.

If one combines findings here with the calculations of presence of crime families in the different localities using national rate calculations, than towns particularly Valletta, Bormla and Santa Lucija hosting a pronounced concentration of crime families could be compared to Wikström's (2008) concept of the "activity field". Also, the community could serve as an "activity field" providing one with crime opportunities and/or criminogenic exposure (Wikström, 2009, 2010) which act as risk or mediating factors accommodating the "role" of the crime promoter (Ekblom, 2010) and sustaining crime continuity across generations of offenders in Maltese families. The days/years one spends in the neighbourhood could serve as a laboratory for experimentation but could also be a source of models. This is closely linked to the social interaction perspective that in a "bad environment" as against a "good one" one is more crime prolific and the neighbourhood is characterised by residents sharing similar backgrounds (Falk & Fischbacher, 2002). In summary, geographical factors and social interaction with offenders could be considered as risk or mediating factors promoting crime continuity facilitated by the size of islands, the geographical layout of towns and lifestyle in Malta.

8.6 Exposure to convicted relatives: a spatial analysis

The analysis presented here focuses on exploring exposure to convicted restricted relatives adopting a spatial approach.

This exercise builds on the examination carried out in Chapter 7, studying timing between convictions of parents and offspring and siblings spending days/years behind bars during the same period, which indicate some sort of social interaction between restricted family members. Also, other findings from this study point towards a scenario where the intergenerational cohort is crime prolific and even more so the presence of an incarcerated relative posits a transmission risk (Chapter 6) as convicted family members act as crime promoters (Ekblom, 2010) to the crime continuity. The examination carried out in this section takes the investigation one step further in that it attempts to establish how many convicted relatives lived in the same neighbourhood, and examines the concept of exposure and contacts with relatives whom were interned at CCF between 1950 and 2010.

The main focus here is to explore restricted relationships tagged by the presence of parents-offspring and siblings residing in same locality employing street level analysis. The choice of these relationships is primarily linked to the finding that they featured predominately in the mapping of *trees* representing crime families. Addresses identified in the conviction tickets were filtered by street names since house numbers could be incorrect or were changed over time. The latter is linked to changes in door re-numbering, which were carried out nationally across the decades.

Studying all the existent parent-offspring relationships featuring across the intergenerational cohort as a parameter was not feasible. This was due to a significant number of *trees* that host a blend of restricted and extended relationships. A decision was taken to identify a specific type of relationship in order to better understand this particular phenomenon through the investigation of that entire sub-group. The two characteristics were based on the two most predominant relationships; that of the siblings as brothers and the father-son (which was here enhanced through the addition of the relationships in the parent-offspring cohort, in order to include the father-daughter, mother-son and mother-daughter cohorts).

An analysis was made of the presence of siblings living in the same street, which was run through a spatial query. The parameters of the cohort studied here included all relationships tagged by the presence of siblings filtered by 2G as the unit of analysis, which would have included the main 2-siblings incidence through to the larger groups which run to six brothers. The analysis shows that from 84 families falling within the constraints of this exercise, of those who form part of a siblings' relationship, 41 live in the same address, in effect representing 49% of the 2G families. This result signifies that most siblings live in the same location, which requires further study in the future in order to establish their status, and whether or not they moved to another address in the same street. The current study cannot investigate this but research in the CCF would help to elicit whether they lived in the same house or in a dwelling in the same street. This said, the distance between dwellings in the same street is very small as Maltese streets are rarely more than a few hundred meters in length. This suggests that irrespective of the presence of the same or other dwelling location, the fact that the street level was chosen, demonstrates that the concept of proximity is represented adequately. Another study could be carried out based on a buffer analysis away from the location of residence, which study would allow for the analysis of distance decay in offending patterns between the offenders' homes and the location of the offence.

In the second exercise, the focus was made on relationships representing crime continuity across two generations. In this case, the analysis was filtered by restricted relationships tagged by the presence of the vertical relationship; the parent-offspring as represented in the 2G. The analysis shows that from 102 families that had a parent-offspring offending relationship, 31 lived in the same street equating to 31% of the 2G families. This finding indicates that the family incidence occurs early in the lifetime of the offspring, before they move out, which exposure to another offender in dwelling could be influential on the offspring or in some cases on the parent/guardian. Note that in Malta, leaving the dwelling to obtain one's own residence is postponed even to the 30s, with movements occurring on the acquisition of marriage status. This phenomenon, however, is not necessarily the case in recent years, particularly the last decade, but held strong from most of the period under study.

Results here direct one's attention to continuity in offending either because of the environment they share, or geographical proximity and/or due to some form of social interaction through which one is exposed to the "crime promoter". Findings here could also explain further co-offending involving restricted family members; an activity is closely linked to the concept of trust rooted in the closed-knit family and also to the size of the islands. This could in turn explain why findings from this Malta study linked to co-offending contrast with claims from the reviewed literature that co-offending involving parents and their children is rare as compared to siblings as co-offenders (Farrington et al., 1996, 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997). In summary, geographical residential proximity potentially accommodates co-offending (Farrington & West, 1990) in Malta. In the case of siblings as co-offenders this could also be explained in terms of age similarity other than geographical proximity (Farrington & West, 1990) as attested by the 49% representing those living in the same street. This study can be enhanced through the further investigation of the parent-offspring relation prior-to and post-exit from the family home (family of origin).

The following section takes the analysis a step further by examining the spatial location of crime families with the use of poverty and offender hotspots identified in the Formosa (2007) study.

8.7 Individuals living in poverty hotspots

A mapping exercise was carried out to determine the extent to which offenders forming part of the intergenerational component in the 2000s resided in poverty hotspots. The poverty data is based on the study carried out on a spatial analysis of the welfare data using NNH1¹²⁹ which resulted in a number of spatial ellipsoids¹³⁰ that show where the concentrations of people in poverty¹³¹ reside (Formosa, 2007). As the crime analysis for this part of the family versus poverty study was based on the availability of data which was constrained by the welfare data made available in the period 1998 to 2003¹³², it was decided that the base year to work with was that produced by Formosa (2007) for the 2003 welfare data points which were dependent on the unemployment variable as a surrogate for poverty.

“For the purpose of this study poverty is analysed through the use of a surrogate: unemployment. The latter serves as the basis for choices an offender may make to partake to crime, depending on his/her need to acquire finances to survive or improve his/her ‘relative poverty’ through non legal means.” (Formosa, p.206)

The year 2003 data was also used for this study due to the fact that the gap between the two years was too small to elicit differences in the ellipsoids as there were very few changes in the number of welfare beneficiaries.

Through the use of CrimeStatIII, a series of standard deviational ellipsoids were created based on 1 standard deviation, which ellipsoids were based on the street centroids pertaining to those persons receiving welfare benefits. The proximity of each centroid allowed for the identification of concentrations of the unemployed (and hence persons at risk of poverty) by street level. Where proximity between the different centroids was such that they were deemed close to each other such as a distance of 25m then the tool creates an ellipsoid for that zone. Where 2 ellipsoids or more overlap, larger ellipsoids are created. The process continues in this mode until there are no more overlapping ellipsoids at the respective standard deviation used,

¹²⁹ The NNH (hierarchical nearest neighbour) clustering is best described as “a constant-distance clustering routine that groups points together on the basis of spatial proximity. ...Typically, one standard deviation will cover more than half the cases whereas two standard deviations will cover more than 99% of the cases, though the exact percentage will depend on the distribution.” (Levine, 2002, pp. 2.28 - 2.30).

¹³⁰ Concentration of poverty areas.

¹³¹ Poverty was analysed on the welfare benefits data listed as UB (unemployment benefit).

¹³² Note that welfare data at street level was only made available between 1998 and 2003 but the department advised that the early years were susceptible to input errors and that the data pertaining to 2000-2003 was more reliable.

in this case NNH1. The overlaying exercise described below was then employed through the identification of the street centroid pertaining to the offender location as it overlays on the poverty ellipsoid.

Figure 1 in Appendix 6 depicts the poverty hotspots of the Maltese Islands identified in the Formosa (2007) study. The poverty hotspots are based on the proximity analysis of those street-level data which are made available from welfare benefits. The hotspots are spread over the islands and highlight those ellipsoids that depict those specific areas that host a concentration of poor families living in proximity to each other.

8.7.1 Residential location of individual inmates in the intergenerational cohort

The map in Figure 8.2 shows the residence location the individuals in the intergenerational cohort for the 2000s whilst Figure 8.3 maps those intergenerational individuals whose residence is within an identified poverty hotspot¹³³.

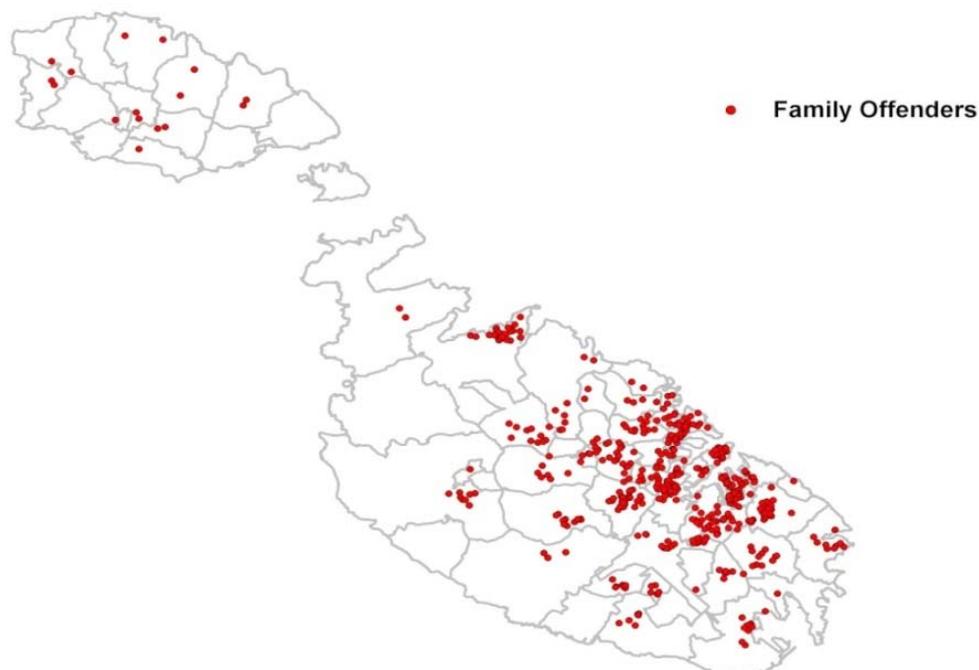


Figure 8.2: Offenders' Residence 2000s – Intergenerational cohort

(Adapted from Formosa, 2007)

¹³³ Formosa (2007) study.

This initial analysis shows that in the 2000s, 175 individuals from 429 (representing the intergenerational cohort for the 2000s and who had an identified address) lived in poverty hotspots. Thus, 40.79% % of the individuals belonging to the intergenerational cohort lived in identified poverty hotspots in the 2000s. Taking a closer look at Figure 8.4, it is clear that in terms of poverty hotspots analyses at local council level, offenders belonging to crime families reside mostly in the poverty hotspots of Valletta (12.6%), followed by Zabbar and Qormi (8% each), Zebbug (Malta) at 7.4%, Sliema (5.1%) and Bormla (4.6%). Housing in Valletta and Bormla is relatively cheaper than in any other locality on the island with such a factor serving as a pull factor for individuals who are unemployed and even more for the offender just released from prison jobless and consequently likely to opt for cheap shelter.

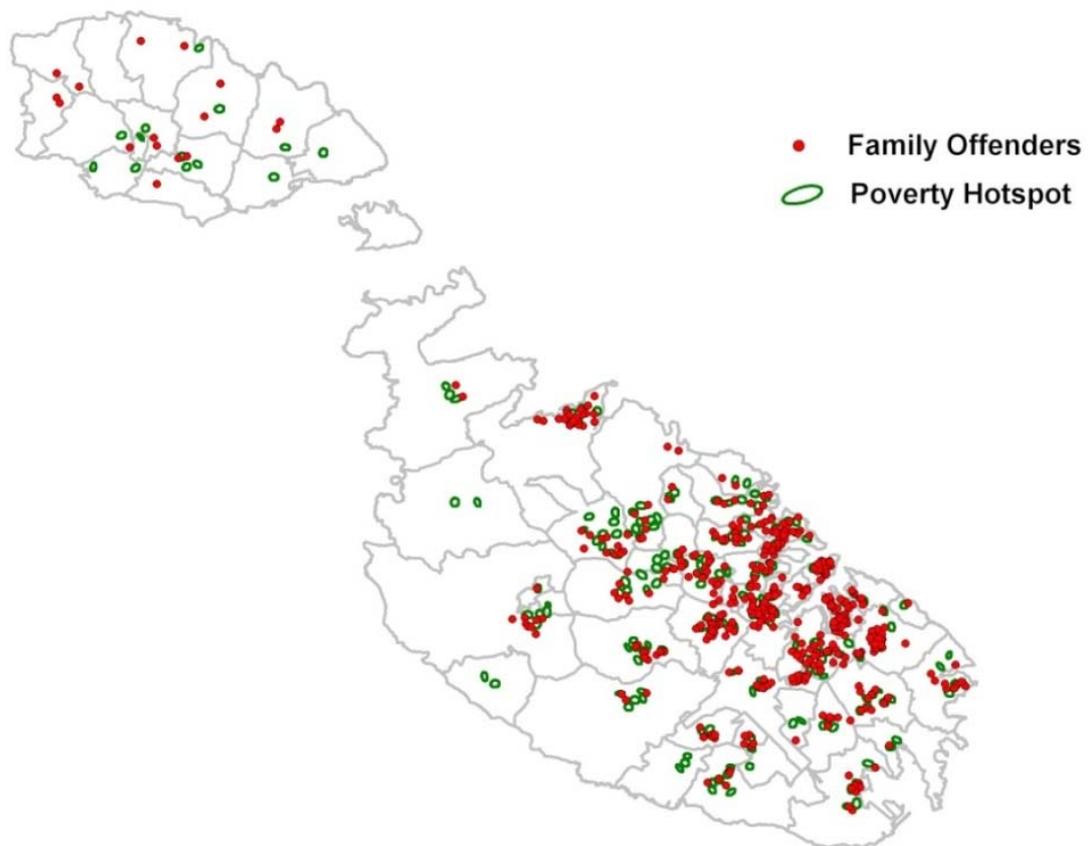


Figure 8.3: Map of Intergenerational Individual Offenders residing in Poverty hotspots.

(Adapted from Formosa, 2007)

This said it is highlighted that Valletta has the largest concentration of empty dwellings consequently attracting a number of squatters and this could explain why it ranks first in this spatial analytical exercise. Also, Bormla and Isla are two of the three cities that constitute the rust belt area; industrial investment has been abandoned in the area leaving the residents with fewer employment opportunities. Findings here are based on unemployment benefits data which is quite a valid surrogate as according to Linn (2008) unemployment is a risk factor rendering one prone to poverty and social isolation. On the other hand, Hjalmarsson and Lindquist (2009) point out that being poor does not render one a criminal, but it is rather a combination of a series of risk factors that present themselves contemporarily could (Farrington, 2002; Farrington et al., 2001, 2011) account for crime propagation across generations.

Interestingly towns like Zebbug (Malta), Sliema, and Zabbar feature for the first time as localities for offenders belonging to crime families residing within national poverty hotspots which findings are to be taken up further in future research. Also, the situation in Qormi could be linked to the finding that Qormi ranks first as a home town to individuals in the 2-node structure.

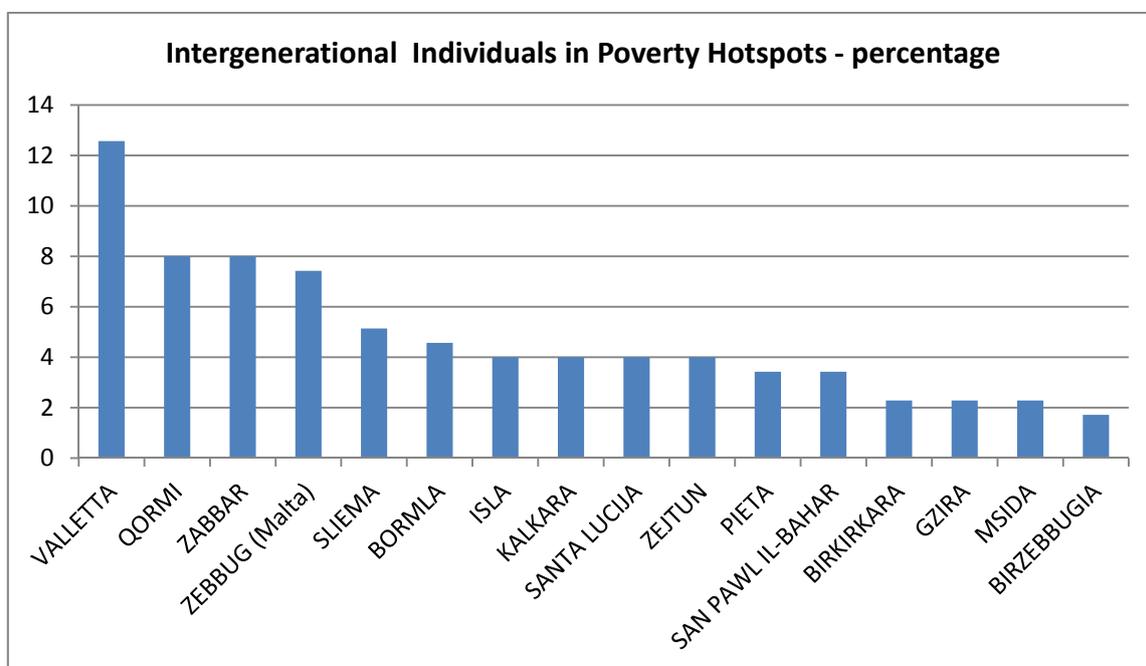


Figure 8.4: Families residing in Poverty hotspots by Locality in the 2000s– NUTS5

8.7.2 *Individuals' residence and offender hotspots*

This section focuses on the mapping exercise carried out to determine the extent to which individuals in the intergenerational cohort reside in offenders' residential hotspots identified by Formosa (2007). Once again similar to other mapping exercises of spatial locations, the address identified in one conviction ticket for each individual was accounted for. Also, the offender residence hotspot of Formosa (2007) was used as a reference map facilitating the comparative analysis needed to identify whether or not the possibility of crime families to concentrate in offender hotspots holds.

Figure 8.5 shows the clusters of individuals in crime families who reside in the offender residence hotspots. The offender residence hotspots are based on the proximity analysis of those residential locations pertaining to the offenders. The hotspots are spread over the islands and highlight those ellipsoids that depict those specific areas that host a concentration of offenders who live in proximity to each other. Once the family offenders are mapped, a point-in-polygon analysis was carried to determine which family individuals reside in such offender hotspots, which scope was set to determine the concentration of these families in the specific offender zones or whether they reside outside of such zones.

The offender residents' hotspots were created through the same process employed in the poverty hotspot approach.

Two hundred and one offenders out of 429 lived in the offender residence hotspots (the latter designated using through NNH1) in the 2000s; with this figure equivalent to 46.85%. Valletta (9%) Bormla (7.5%), Qormi (7%) and Zabbar 6% have the highest concentration of offenders in crime families clustering in offender residential hotspots (Figure 8.6). These are followed by Birkirkara and Gzira. The trends here follow same trends identified in the poverty hotspots analysis discussed earlier in this chapter. Hence, directing attention to the fact that poverty hotspots and offender-hotspots could be closely linked to the quality and standards of housing in an area. The findings for Valletta and Bormla corroborate previous risk variable analyses which identified these two localities as hosting a concentration of crime families. Also, Valletta, Gzira and Qormi have higher than the national rates for concentration of crime families respectively.

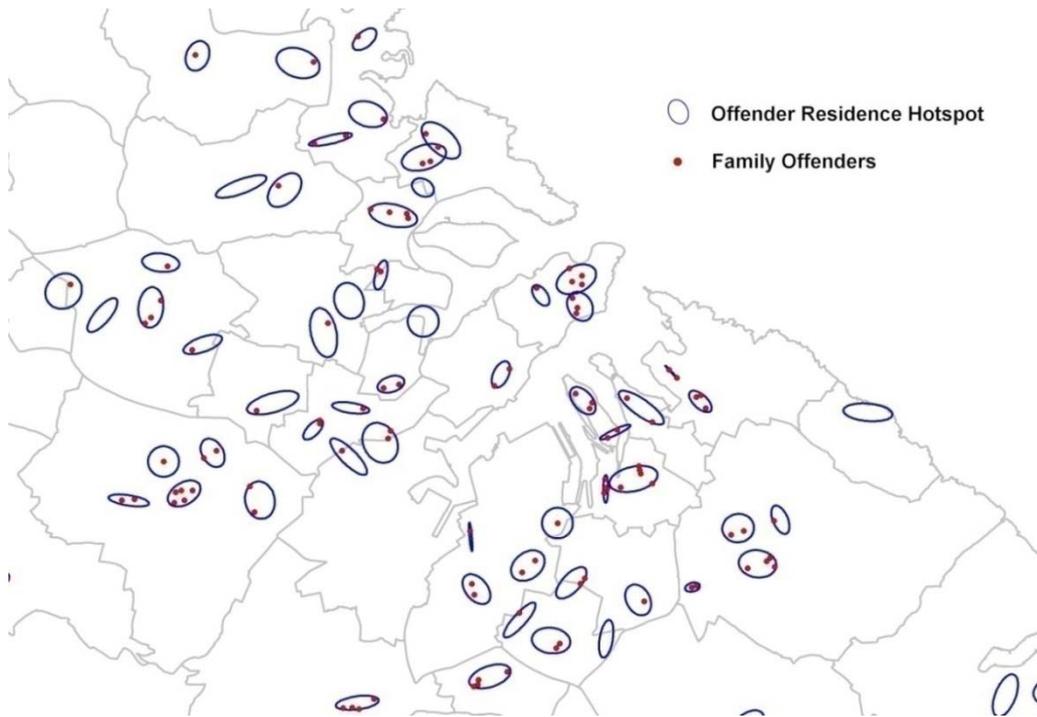


Figure 8.5: Map of Intergenerational Individual Offenders residing in offender Residence hotspots

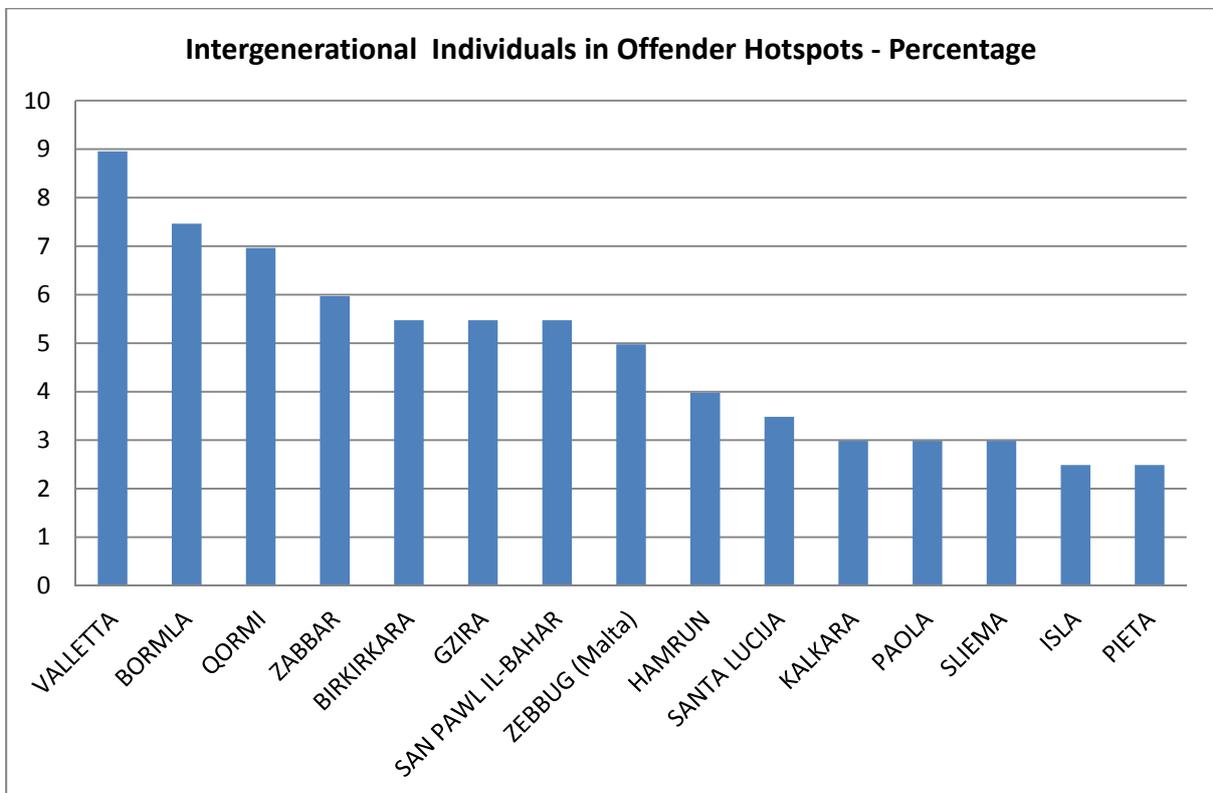


Figure 8.6: Individuals in Offender Hotspots by Locality in the 2000s

8.7.3 Offenders living in intersecting hotspots

The investigation of the intersecting poverty hotspots and the offender-residence hotspots aims at examining phenomena linked to the quality and standards of housing that characterise an area. Figure 2 in Appendix 6 combines the poverty hotspots and the offender residence hotspots identified by Formosa (2007) and it shows that more than half of the offender residence hotspots (blue ellipsoids) overlap poverty hotspots (green ellipsoids). Housing factors could in turn affect the residents that are attracted to the respective areas which could become attractors for offenders due to the various issues pertaining to low rent, potential for squatting, small buildings and the concentration of government-subsidised housing.

One hundred and five individuals (from 429) lived in intersecting offender-residence and poverty hotspots for the 2000s; this is equivalent to 24.47% of the intergenerational cohort residing in overlapping poverty and offender hotspots as shown in Figure 8.7a.

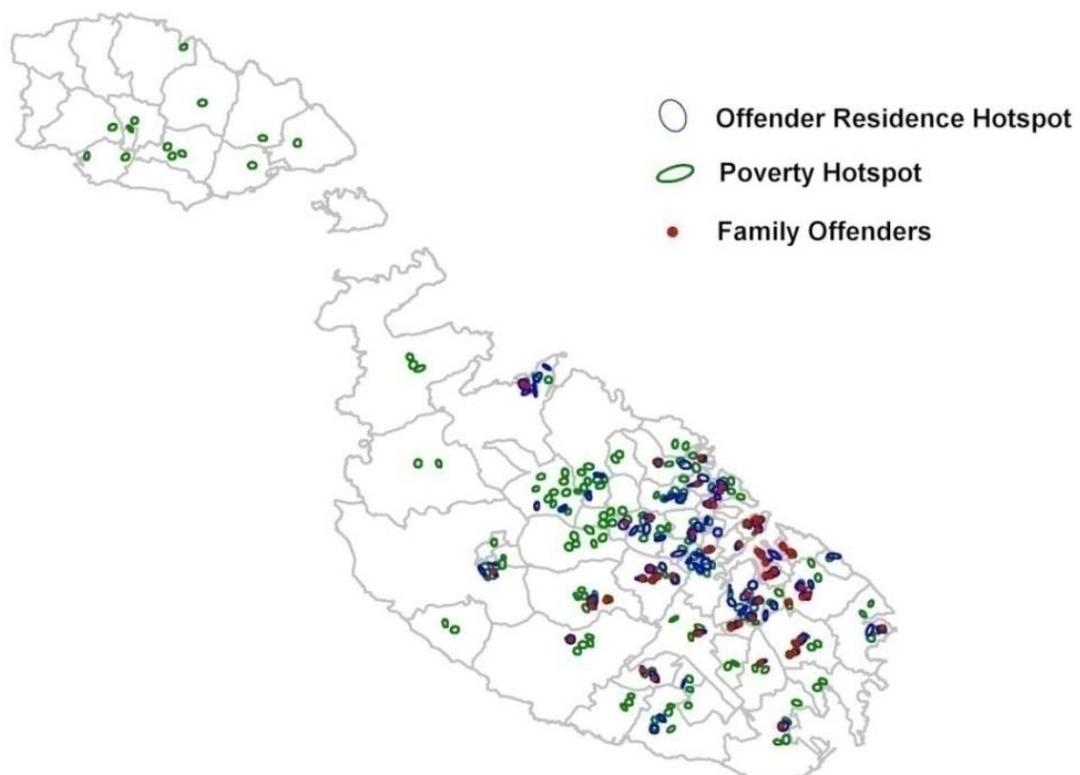


Figure 8.7a: Map of individuals residing in Offender Residence hotspots and poverty hotspots in the 2000s

(Adapted from Formosa, 2007)

A close look at Figure 8.7b, indicates, clearly, that the intersecting hotspots are found in the Grand Harbour Area mainly in Valletta and Bormla; Zebbug (Malta), Qormi, Zabbar and Santa Lucija. Valletta hosts the largest concentration of empty dwellings and thus attracts squatters on the other hand Bormla is one of the three rustbelt cities. This said, trends here show that poverty hotspots are convenient as offender residence since housing here is expected to be relatively cheaper than other areas in the respective towns. Interesting are the overlay of poverty and offender- residence hotspots for Zebbug (Malta) and Santa Lucija identified in this study.

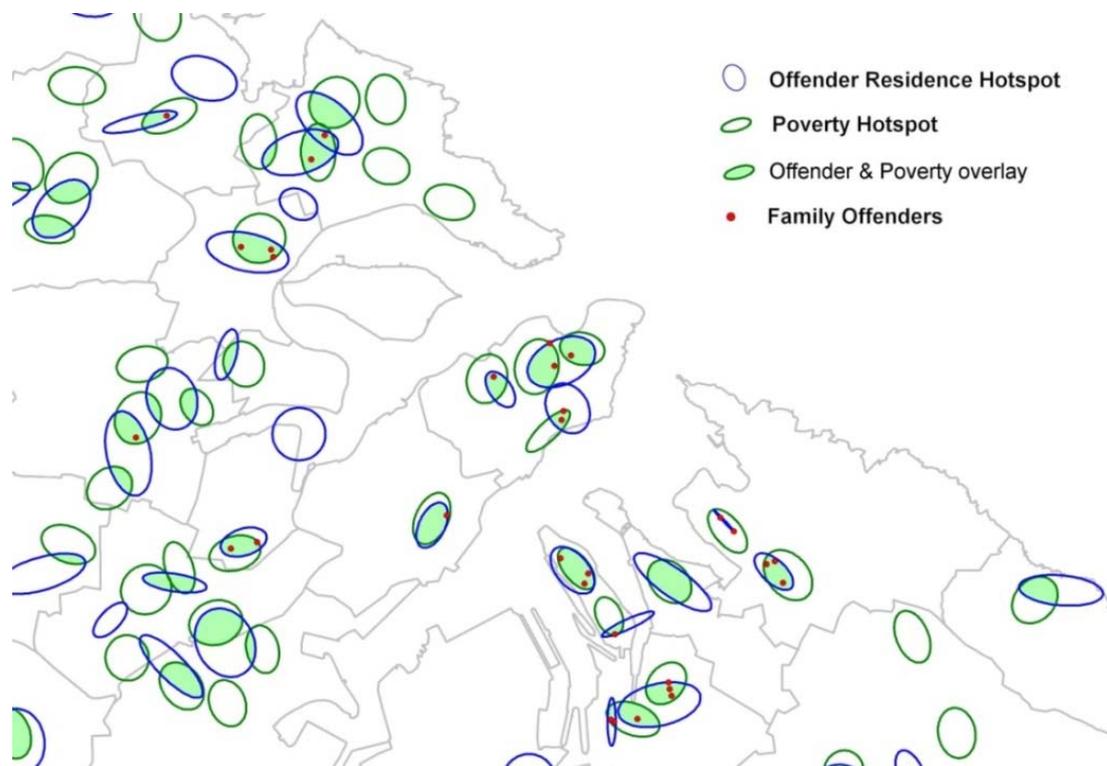


Figure 8.7b: Map of individuals residing in offender residence hotspots and poverty hotspots: detail of the Grand Harbour Area

(Adapted from Formosa, 2007)

8.8 Summary: Research Question 4

Valletta, Bormla and Santa Lucija could serve as Wikström's (2008) activity field providing one with role models on exposure to crime. Consequently in a "bad environment" which hosts a concentration of crime families sharing similar backgrounds such as in Valletta, Bormla and

Santa Lucija one is more crime prolific as constructs within these locations “promote crime” (Ekblom, 2010). Interesting are the findings for Santa Lucija when considering concentrations of crime families in the locality and the analysis in comparison to the identified offender-residence hotspots. In summary, Santa Lucija is an attractor as a residence to the individual offender a phenomenon which has featured in this study. Adopting Shaw and McKay’s social disorganisation framework (Shaw & McKay, 1942) the findings here point towards a scenario where certain localities, particularly Valletta and Bormla are likely to retain their criminogenic characteristics through “transgenerational transmission”. Thus in the absence of the ability to implement and maintain effective means of social controls they could be classified as socially disorganised neighbourhoods (Sampson & Groves, 1989). This is to a great extent comparable to the findings from the Formosa (2007) study claiming that offenders in Malta migrate to areas likely to host other offenders and laden with other socio-economic drawbacks and poor collective efficacy. In this respect, these factors could be considered as a multiple risk/mediating factors operating as “cause of causes” where the setting does not directly predispose individuals and families to crime but has a significant influence on those with high criminal propensity (Wikström et al., 2010) in this case the individual/s belonging to crime families.

Around forty one percent of the individuals belonging to the intergenerational cohort lived in identified poverty hotspots whilst 46.85% lived in identified offender-residence hotspots in the 2000s. Interesting is the figure of 24.47% which represents those individuals living in the overlapping poverty and offender-residence hotspots. The poverty hotspots of Valletta, Zabbar, Qormi, Zebbug (M), Sliema and Bormla are home town to crime families whereas the offender-residence hotspots of Valletta, Bormla, Qormi and Zabbar attract as a residence location crime families. On spatially analysing the intersecting hotspots for poverty and offender residence; Valletta, Zebbug (M), Qormi, Zabbar, Bormla and Santa Lucija feature pronouncedly.

The likelihood for individuals in crime families to reside in offender residence hotspot and poverty hotspots can be explained in various ways either because the individual continues to live with his/her restricted family mainly parents, or if one setups up his/her own residence then one could opt to stay within the same locality or get married or is involved in a partnership relationship with someone who lives in the same locality. This could be either a matter of choice, which could emanate from convenience, or it could be a matter of settling in an area where individuals share similar background thus also catering for the possibility of living in

neighbourhoods where one feels socially included rather than being socially excluded. Also, inmates could find it difficult to rent elsewhere as landlords would be reluctant to do so whilst it could also be a difficult challenge to get approval by any local bank for a home loan. However, this is could be linked to affordable housing as in the case of Valletta characterised by squatting and Bormla being one of the three rust belt cities is also characterised by cheap housing and social stigma.

Findings here add to those from Chapter 7 particularly those focusing on social interaction and exposure to crime. Social interaction with a restricted relative and/or with other offenders within the community and geographical proximity strengthened by the closed-knit familial ties, indicate a degree of interaction which directly or indirectly could influence crime continuity. Also, this interaction could result into collusion related to planning of crime such as co-offending and an “accumulation of disadvantages” through exposure to individuals who are crime prolific. In other words, this could be closely linked to “cumulative learning” where crime is perceived as a legitimate “routine” activity.

Additionally, social isolation and poverty are considered as risk factors by Linn (2008) which risk factors result following unemployment. Unemployment could catalyse crime (Raphel & Winter-Ebmer, 2001) but it could also incite crime in a society (Arvanities & Defina, 2006). Also, unemployment could bring about stress which, in turn, affects parenting thus socio-economic factors such as unemployment could be considered as an indirect risks affecting crime continuity (Fergusson et al., 2004; Sampson & Laub, 1993). In summary, the spatial location of the individual offender could be considered as an indirect risk factor mechanism closely linked to economic and employment factors which risk/mediating factors in turn could potentially explain how and why crime runs in families. However, it is noted that these risk factors are not exclusive to intergenerational offending. This said, these will be examined further in Research Question 5.

The analysis of spatial location of individual offenders belonging to the intergenerational cohort in comparison with the identified poverty and offender hotspots (Formosa, 2007) satisfies the second part of Research Question 4. However, the poverty and offender-hotspots accounted for, represent a specific time-frame mainly the 2000s. In summary, a decadal approach could have provided more in-depth information. Also, if census data was available at street level, than a comparison with the general population of the islands in the respective hotspots would have taken the investigation a step further. Also, findings here do not provide

information about the potential networks between crime families residing in the identified hotspots and does not take into account one's upbringing. The method used for studying neighbourhood effects through studying the days/years at CCF and in comparison to the days/years within the community needs further refining. Future research should take into account age, amnesties and days yet to be spent at CCF as per sentences which are still being served, which variables were not examined in this study.

The following section overviews other risk factors particularly focusing on literacy, schooling and employment history to explore these constructs as potential risk or mediating factors to crime continuity.

Research Question 5:

What are the individual and social factors that could “promote” crime continuity in the intergenerational cohort?

The main focus here is to examine variables directly related to education and employment (prior to admission to CCF). It is noted that the data pertaining to these variable has not always been gathered within the CCF registry questionnaire and/or CCF ledgers and is to be read within the context of such an occurrence. The lack of data, however, does not mean that these variables should be discarded.

8.9 Literacy

The percentage of prisoners who are literate in the intergenerational cohort is generally higher (59.7%) than that of non-family cohort (54.4%) and of the general prison population (52.9%). This is also reflected where semi-literacy is concerned since it registers highest in the intergenerational cohort at a rate of 17.7% (Figure 8.8) as against 14.3% for the general prison population and 13.2% for the non-family group. With such a relative weight towards literacy in the family component, in turn illiteracy rates are highest for the non-family component (33.9%) whilst lowest for the intergenerational cohort (22.6%). A crosstab analysis confirms this positive relationship through a chi squared test at $X^2(2, N = 4076) = 45.16, p < .001$.

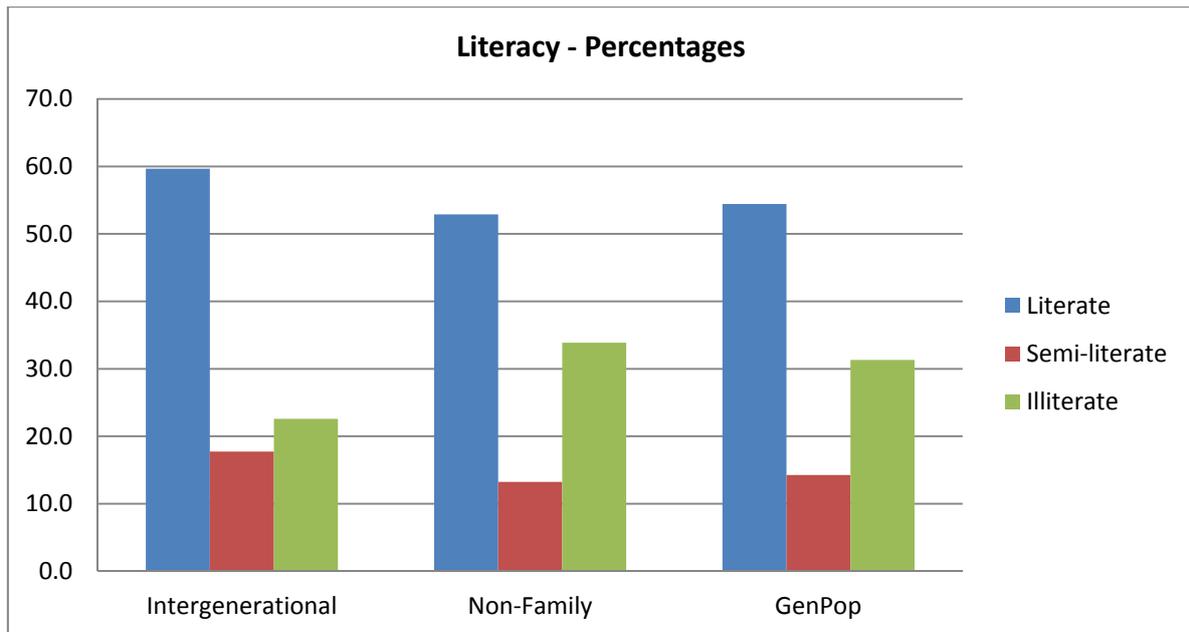


Figure 8.8: Literacy by Population Cohort

The 2-node structure represents 409 crime families (818 individual offenders). Also, this family tree structure is characterised by the pronounced presence of siblings followed by parental relationships (father-son). Consequently, variable analysis was carried out by testing literacy in comparison to the main relationships identified in the structure; horizontal: siblings and vertical: parental (father-son). Individuals belonging to the 2-node structure are literate; 59.3% claimed to be literate¹³⁴ as compared to the 24.9% defined as illiterate¹³⁵ and another 15.8% being semi-literate¹³⁶. In summary, irrespective of the nature of the relationship between individuals in the 2-node structure the possibility for one to be literate is higher. Similarly, individuals in the 10+ node structure are twice as much likely to be literate (60.6%) than semi-literate (30.3%). The high literacy rates as well as the low illiteracy rates can be explained in terms of the predominant 20-24 age group who lived through the years that witnessed the legislation of compulsory schooling and who benefitted from the post-independence era and the new Education Act¹³⁷ which lowered compulsory schooling to the

¹³⁴ Ability to read and write.

¹³⁵ Unable to read or write.

¹³⁶ Ability to either read or write.

¹³⁷ Education was declared compulsory in 1946 as a large number of children, in the aftermath of World Wars I and II failed to attend school, mostly doing chores to help mitigate the impacts of the resultant financial crisis and the famine that families were facing. In 1988 the age of compulsory initial attendance was lowered to 5 years. Students have to attend to primary and secondary schools between the age of 5 and 16.

age of 5. Also, legal guardians face legal action if they fail to send their children to school, such a misdemeanour is sanctioned by a fine (multa).

Whilst it might be difficult to analyse in depth the literacy issue from the data analysed here, such can however be reviewed in terms of the inmate's school record which was recorded, mainly whether inmate was an early school leaver¹³⁸ and what type of school s/he attended. Also, future analysis should opt for a decadal approach to verify whether literacy trends changes across the decades particularly highlighting potential changes following the post-independence era emanating from higher national literacy rates and more enforcement on absenteeism.

The following section overview the school type attended by inmates distinguishing between cohorts and focusing closer on the 2-node and 10+ structures.

8.9.1 School type attended

Though a crosstab analysis does not give reliable outputs due to the fact that a large number (33.3%) of cells were not populated, even if chi squared test at $X^2 (11, N = 2636) = 70.62, p < .001$, this analysis shows that Maltese inmates are highly likely to attend a government school irrespective of whether or not one finishes off his/her secondary schooling years or quits at the age of eleven just after the primary years (amounting to 82.8%). The relative low figures representing church school and independent school attendance clearly show that the government school attendance is highly pronounced across all three cohorts.

Interestingly, more detailed analysis shows that those belonging to the intergenerational cohort are more likely to finish off their secondary schooling or have attended a trade/technical school during their last three years of compulsory schooling. On the other hand, the highest portion of early school leavers lies in the non-family component (39.5%) and this is in turn reflected in the 36.1% of the general prison population quitting schooling once they have finished off their primary. Such an attendance pattern was characteristic of the 1950s and 1960s with Maltese families needing their children to enter the labour force to help in sustaining the economic needs of the household. The school attendance trends here mirror to a great extent

¹³⁸ Quit schooling at primary school level.

the literacy patterns identified earlier. Also, the inmate is highly unlikely to have followed a post-secondary certification or a tertiary level of education.

Individuals belonging to the 2-node structure concentrate in schools run by the government and this finding applies for horizontal (siblings) and vertical (father-son) relationships featuring in this type of crime family. Also, 59.3% of those in the 10+ node have completed their secondary school as compared to the 22.1% who quit schooling early after the primary years at the age of eleven. Schooling years and school attendance trends follow the same patterns of the 2-node with the government run school factor featuring significantly once again with 59.3% have finished secondary schooling and another 22.2% have finished their primary schooling in local government schools. It is to be highlighted that no one within the 10+ attended a church or an independent school whilst only 1.2% studied abroad (secondary level) or attended to university. Considering attendance in government schools in light of non-attendance in church or independent schools then such a scenario could shift one's attention to a situation in which the type of school could have a role to play in continuity of crime. However, it is noted that government schools have a relatively larger intake of students.

The following section analysis employment of inmates prior to their admission at CCF distinguishing between cohorts. Findings presented here are based on information provided by inmates on registration at CCF.

8.10 Employment

The first part of this section identifies the employment background of the individual inmate before serving an incarceration term, through a comparison of population cohorts using the ISCO codes. This is then followed by an analysis of unemployment rates of the prison population in comparison to the unemployment rates of the Maltese Islands for the last decade (2000-2010).

A crosstab analysis of the number of family membership and employment type shows that there is a significant relationship through a chi squared test at $X^2(11, N = 4588) = 220.99, p < .001$. The relationship is evident through the situation where the Maltese inmate and even more so those who belong to families in crime, is non active (unemployed) where 32.8% of the general prison population declared so on registration at CCF (Table 8.5 and Figure 8.9). On the other hand, the highest percentage of those non active is within the intergenerational cohort comprising

almost half of this cohort’s employment structure (49.7%) as against the 27% representing the non-family component. The unemployment patterns identified here for the intergenerational cohort could be linked to their specific crime trends identified in Chapter 6, particularly with regards to robbery and theft. These two issues could be linked directly or indirectly. Consequently, adopting functionalist perspective the financial needs of crime families could be addressed through crime itself as a source of income.

Table 8.5: Employment by population cohort using ISCO codes

V10i Employment – Percentages			
ISCO codes	Family	NonFamily	GenPop
Armed forces	1.3	1.6	1.5
Clerks	0.3	0.9	0.8
Craft and related trades workers	11.7	14.4	13.7
Elementary occupations	16.7	26.8	24.2
Legislators, senior officials and managers	1.7	3.1	2.7
Plant and machine operators and assemblers	7.0	9.2	8.6
Professionals	0.4	0.9	0.8
Service workers and shop and market sales workers	6.0	6.3	6.2
Skilled agricultural and fishery workers	1.1	3.7	3.0
Technicians and associate professionals	0.9	1.7	1.5
Other Activities	3.2	4.5	4.2
Non Active	49.7	27.0	32.8
Total	100.0	100.0	100.0

Interestingly, those who were employed prior to their incarceration, irrespective of the cohort they belong to, tend to perform jobs ranking low with regards to social prestige and salaries. Also, the lower rates for professionals across the three cohorts but particularly for the intergenerational cohort with 0.4% confirm trends for low-paid jobs which occupy lowest ranking positions in the social ladder. Such include elementary occupations and craft and related trades workers (24.2% of the general population). Elementary occupations are even more pronounced in the non-family component (26.8%) as against the 16.7% for the intergenerational cohort. However, the non-family offender component is more likely to be in employment in this group (26.8%) as against the intergenerational group (16.7%). This indicates, clearly, that those in employment “construction and maintenance labourers” get the lowest salary as established by the minimum wage regulations.

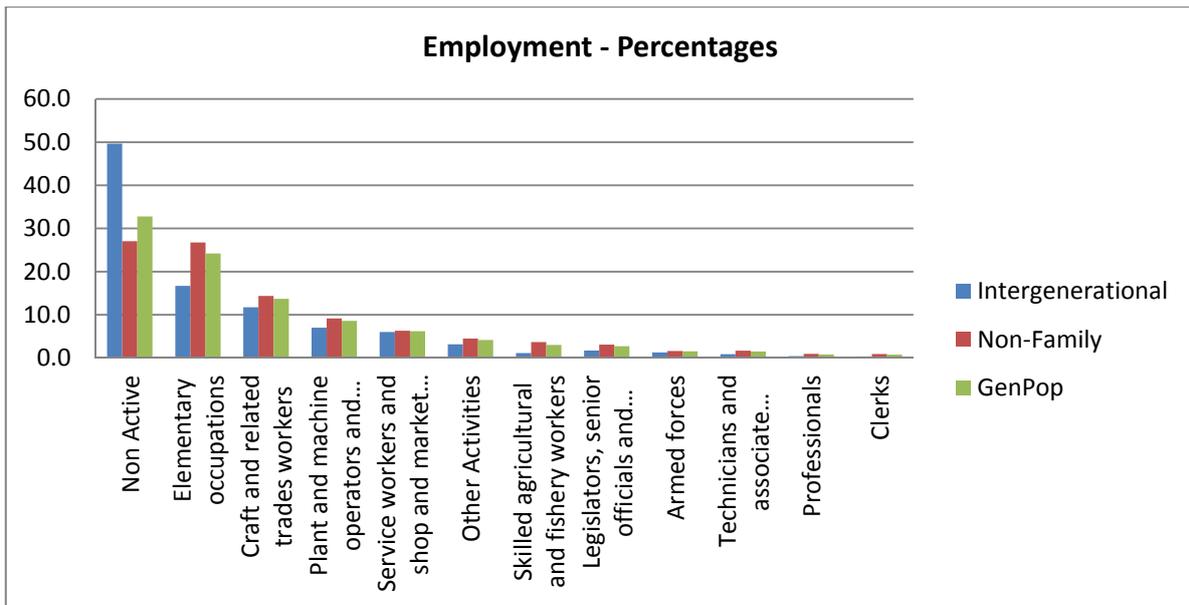


Figure 8.9: Employment by population cohort

A closer look at the individuals in the 2-node and 10+ node structures shows that almost half of the individuals in the 2-node structure are non-active, thus they were unemployed prior to their admission to CCF. Similar findings were noted for horizontal and vertical relationships. In summary, 45.7% were unemployed. Those who were gainfully employed before their prison term pursued relatively low paid jobs such elementary occupations (e.g. cleaners) and craft and related trades workers with a frequency of 18.0% and 11.6% respectively. The rate of those non active in the 10+ structure is very high: 73.9% much higher than the 45.7% non-active in the 2-node. Also, those employed are into jobs that rank in the lowest paid jobs regulated particularly by the Minimum Wage legislation such as those in machinery operations (7.6%), elementary occupations such as cleaners (7.6%) and trade related work (5.4%).

This said however, it would be interesting to understand whether unemployment is linked to an offender issue or else an employer issue. The latter represents a scenario where one either lacks employability skills or the necessary skills that could widen the opportunity for one to find better paid jobs or even more so if one was never employed. On the other hand, the former scenario is related to the fact that the label assigned to an individual following a prison term limits one's opportunity to join the labour market as such a label daunts potential employers.

At this point one has to consider the crimes specific to the intergenerational cohort. These figures explain clearly why offenders fail to pay their multas and legal fees as reflected in the

instances of the sub-category “other-justice”. Also, such unemployment frequencies could also explain the incidence of robbery and theft.

8.10.1 Unemployment as compared to the Maltese Population

Should one compare the inmates unemployment issue as against the general Maltese population, some interesting outcomes are noticed. Persons in the Maltese Islands benefitting from Welfare Benefits under the term “Unemployment Benefit – UB” amounted to 5,330 as of December 2005 which is the mid-point date for the 2000-2010 study. This relates to 1.3% from an enumerated population of 404,962 (NSO, 2006), which when compared to the prison population is drastically smaller than the prison general population rate as described below.

Four hundred and twenty nine intergenerational individuals informed CCF of their activity status (employed or unemployed) in the 2000s. Two hundred and ninety eight (69.5%) of these persons stated that they were unemployed. When compared to the unemployment rate for all the individuals (General Prison Population) in the 2000s, the unemployment rate of the whole population stood at 68.8%. In turn, when contrasted to the non-family members, the resultant unemployed individuals who do not form part of the families in crime comprise 68.3% of that category. All inmates have 52.9 times the national rate of being unemployed, whilst family members have a slightly higher rate of 53.5 times the national rate followed closely by the non-family members at 52.7 times the national rate. Interestingly, the investigation carried out here shows that for the intergenerational cohort, the three main categories where employment is present are bricklayers and stonemasons, car, taxi and van drivers followed by shop salespersons and demonstrators (persons who visit homes to deliver demonstrations on goods).

These findings highlight a drastic disparity between the national unemployment rates and those related to inmates. The reasons may vary, case in point being labelling (Biljevald & Wijkman, 2009; Farrington et al., 2009; Van de Rakt et al., 2009) which could have a role to play with regards to employment opportunities. Also, even those who are serving their first conviction ticket may have their *fedina penale* marked with a suspended sentence or another community based sanction issued earlier on in life limiting one’s chances of joining the labour force. In addition, individuals who belong to crime families may be worse off than anyone else with regards to job opportunities particularly in an island where the size and family nicknames could work for and against an individual’s opportunities for change. However, another scenario could prevail in that crime families could find it more convenient to earn a living and financially

cater for the economic resources through crime. The increased incidence of drug related offences as per police data and incarcerations (Chapter 6) point towards a trend and an activity which generates a substantial amount of money which crime genre is increasingly becoming more pronounced in the last two decades in crime families.

8.11 Summary: Research Question 5

Overall, irrespective of whether or not one belongs to a family in crime, literacy patterns show that it is less likely for an offender to be illiterate which scenario is linked to the changes in education since Malta became independent (1964). Nevertheless, it is also clear that an inmate is very much likely to be an ex-student of a school run by the local government. Also, post-secondary and tertiary education is definitely not the norm within this group. However, with regards to school type this is a new and yet an under researched phenomenon and which needs further investigation in future studies.

Another interesting factor is directly linked with employment and the "non active" characteristics rooted in unemployment. The highest unemployment rates feature pronouncedly in the intergenerational cohort which situation could explain their crime specialisation such as conversion of multas (other-justice) robbery and theft identified in Chapter 6. An inmate and even more so, one who belongs to a crime family is more likely to be unemployed when compared to anyone belonging to the general population as per census data. This could be linked to two factors, mainly the labelling effects of families in crime in a country which is relatively small and the possibility of getting to know about a crime is very high and in certain localities the family nickname eases identification but such a nickname could in itself represent the family's good or bad reputation associated with unlawful abiding citizens. The second factor is related to finding that the intergenerational cohort is more crime prolific and also spends longer behind bars as attested by length of sentences (Refer to Chapter 6) which scenarios affect, negatively, their economic activity which in turn limits their employment opportunities and their possibility for change.

In addition, individuals who do not belong to a crime family are more likely to be employed even if it is highly likely to be the lowest paid job on the Islands. Also, those in employment occupied the lowest position in the socio-economic ladder. Employment has been frequently linked to desistance (Blockland & Nieuwbeerta, 2006; Farrington & West, 1995; King et al.,

2007; Laub & Sampson, 2003; Laub et al., 1998; Sampson & Laub, 1993; Sampson et al., 2006; Theobald & Farrington, 2009) and considered as a turning point (Laub & Sampson, 2003) in criminal career research, however, if one's opportunities are limited then the possibilities for change are also restricted (Moffitt, 1993) resulting into a longer criminal career. In this context, in view of crime prevalence, recidivism rates, crimes committed and sentence length together with unemployment rates then the individual in the intergenerational cohort is more likely to have an intense conviction history particularly for those belonging to the larger structures (10+).

The findings presented here satisfy partially the objectives of Research Question 5. The risk factors studied here are empirically intertwined (Besemer, 2012). Also this analysis does not take in the temporal sequence of risk factors and such risk factors are not specific to the intergenerational cohort. Additionally, findings presented here do not account for school experience and academic progress throughout the life course. Also, with regards to employment, variable analysis is limited by the information provided by inmates on registration. In summary, examination was limited by the "one in a lifetime" identified job.

8.12 Conclusion

The analysis of offender-location studying data from the conviction tickets identified Valletta and Bormla as residence for the individual belonging to the intergenerational cohort confirming the offender residence hotspots identified by Formosa in 2007. Also, findings in the current study specify that these two localities are hometowns to the larger family structures that is the 10+node representing a blend of horizontal and vertical crime continuity and relationships between restricted and extended family members. On the other hand, Qormi and Birkirkara host a significant concentration of the smaller family structure, which is the 2-node structure representing continuity in offending through restricted relationships mainly involving siblings and parental relationships (father-son).

Nonetheless, interesting are the findings that follow from the Craglia et al. (2000) method that allow for variable analysis (offender residence) through calculations of national rates which give a clear picture of concentrations of crime families. In summary, Valletta, Bormla and Santa Lucija have high rates as compared to national rates for the intergenerational cohort with Valletta registering the highest rates. However Birkirkara unlike Qormi registered lower than

the national rates for the intergenerational cohort which finding is linked to the fact Birkirkara is the largest town in Malta. Valletta and Bormla, despite the decrease in population over the decades (census data) host a concentration of crime families. Also, the presence of crime families in Valletta for the intergenerational cohort is noted by a very high rate as compared to the national rates (5.6 x National Rate). Surprising are the findings related to Santa Lucija since this locality did not stand out in the examination of residence location by counts. Santa Lucija is a relatively new town and this locality was not identified by Formosa (2007) as an offender-residence hotspot.

An in-depth mapping exercise was carried out to locate those individuals in crime families who live in the poverty hotspots and offender hotspots and eventually in the overlapping hotspots for the 2000s. Yet again when one considers the offenders that reside in intersecting hotspots; the towns of Valletta, Bormla and Santa Lucija feature consolidating the exercise carried out in examining spatially the concentration of crime families. The three towns Valletta, Bormla and Santa Lucija attract offenders more than other localities but could also serve as an activity field (Wikström, 2008) for crime and consequently influence those with a high criminal propensity sustaining “transgenerational transmission” (Shaw & McKay, 1942). They serve as the hometown to individuals belonging to families allowing for continuity of offending across generations which scenario could be predisposed by a socially disorganised framework in the absence of social controls, thus rendering the neighbourhood criminogenic across generations of residents. This said, residence location could be restricted by economic resources such as unemployment but could be a convenient choice since the neighbourhood could serve as a niche for crime families in a context where one feels socially included in a neighbourhood composed of residents coming from similar backgrounds and sharing similar characteristics. Also, the community could serve as a network for crime families considering that most offenders spend more time in the community than behind bars and that social interaction with individuals partaking to crime directly or indirectly promotes crime.

This chapter has also reviewed the socio-economic background of all CCF inmates and inmates belonging to the intergenerational cohort focusing on the potential identification of risk-factor mechanisms that could be linked to continuity of crime in crime families. The main focus centred on literacy, school attendance and employment/unemployment as potential risk factors to crime continuity. The individual offender in the intergenerational cohort is literate and less likely to be considered as an early school leaver when compared to the non-family cohort and the general prison population representing the whole parameter of inmates between 1950 and

2010. On the other hand, such findings contrast with the frequencies of non-activity (unemployment) since higher unemployment rates are noted for the intergenerational cohort. However, this could be linked to “poor education culture” (Tabone, 1994) that in turn hinders social mobility particularly for those living in areas laden with socio-economic disadvantages which render it difficult for one to escape from the criminogenic environment. Also, those who had an identified job at some point in time in their life, occupied a low ranked job which affected their social-status and financial resources. Such could be linked to the crime sub-category “other-justice” representing conversion of multas and unpaid legal fees featuring pronouncedly across the decades and the incidence of theft, robbery and drugs even more so for the intergenerational cohort. Economic inactivity being greater among the intergenerational cohort indicates some sort of financial needs of crime families which may be met through criminal activity to a great extent than individuals who do not belong to a crime family. Those belonging to the non-family component are more likely to be employed even if in the lowest paid jobs. Also, 74% of the offenders in the 10+ were not in employment indicating distinctive socio-demographics of large crime families.

Human beings are social beings (Le Blanc, 2006) and thus it is expected that the risk factors outlined above do not work in isolation but crime has survived across generations as a result of a series of factors acting as direct and indirect mechanisms leading to a situation where crimes and convictions run and concentrate in families.

Chapter 9: Conclusion

9.1 Introduction

The main aim of this study was to develop an understanding of the concentration of convictions served at the Corradino Correctional Facilities (CCF) by Maltese offenders who are related to each and to analyse the evolvement of crimes across the generations. This study analysed whether the family has a role to play in crime particularly in the Maltese Islands, which is a small island state and where families embrace a combination of nuclear and extended relationships (Tabone, 1994). Family life is significantly influenced by the size of the islands, geographical layout of towns and a strong sense of identity which is even felt through extended kinship ties which, in turn, could render it difficult for individuals to detach from their origins. This study outlined the family structures of offenders convicted and serving prison sentences in CCF, pointed out the potential nature and effects of criminogenic exposure, studied the potential role of assortative partnering in establishing and maintaining relationships as well as analysed the spatial, socio-economic and demographic contexts that characterise ‘crime families’.

Each of the three research objectives that define the empirical rationale for this Malta study was assigned its own methodological phase in terms of its investigation.

The main focus of the first research objective was to explore, in-depth, all conviction tickets awarded by a prison term at CCF between 1950 to 2010, in order to identify the presence of inmates belonging to the same family and to create a profile of individuals belonging to crime families. The second research objective studied the influence of identified familial relationships between individual inmates through crime trends. Additionally, the third research objective analysed individual, socio-economic and spatial factors that potentially act as risk and/or mediating factors to crime continuity.

The findings emanating from each research phase capture those crimes sanctioned by a prison term at CCF. The section below highlights the main results and presents a discussion that attempts to explain the findings. This is followed by an overview of limitations, recommendations for policy makers and presents proposals for future research.

9.2 Research findings

9.2.1 *A profile of the intergenerational cohort*

A total of 10,888 conviction tickets were served between 1950 and 2010 by 5,093 individual Maltese male and female inmates interned at CCF, either sentenced or awaiting trial. This cohort represents the general prison population from which two sub-sets were identified: the intergenerational cohort representing inmates related by restricted and extended familial ties and those with no familial links referred to as the non-family component. The typical Maltese inmate follows the age-crime curve and is, likely to belong to the 20-24 age group. Also, the distribution of males and females within the incarcerated population is similar irrespective of whether an individual inmate belongs to the intergenerational or non-family component.

However, for every three inmates registered at CCF, one belongs to the intergenerational cohort. In other words, a third of incarcerated offenders had other incarcerated offenders within their family, whereas, two thirds of the offenders were non-familial. Such findings highlight that in Malta, lives are linked through crime (Thornberry et al., 2003). On the other hand, the non-family component represents discontinuities in convictions and potential turning points (Laub & Sampson, 2003), as for example, one does not necessarily follow the paths of his/her parents/siblings.

A major finding is that a relatively small number of families are responsible for the larger share of conviction tickets, which highlights the fact that convictions run and concentrate in Maltese families. To a considerable extent this is in line with studies carried out in other countries (e.g. Blazer et al., 2006; Farrington et al., 1996, 2009; Jacobson et al., 2000; Lussier et al., 2009; Rowe & Farrington, 1997). Also, the significance of intergenerational continuity became more evident across the decades thus highlighting that the family could serve as a “crime promoter” (Ekblom, 2010) through its influence as a risk or mediating factor in crime continuity. This said, the phenomenon of intergenerational presence exists in Malta and is not specific to a particular decade.

Offenders within ‘crime families’ are more crime prolific than those without family members at CCF; 2.5 convictions per inmate for the intergenerational cohort as compared to the 1.9 for the non-familial cohort. Also, recidivism studied through re-convictions within the intergenerational cohort, was significantly greater than among inmates without incarcerated

relatives. These higher rates of recidivism contribute to the concentration of convictions within the intergenerational cohort and are likely to be a reflection of intergenerational continuities in crime.

Such findings claiming that crime concentrates in Maltese families is similar to previous research (e.g. Bijleveld & Farrington, 2009; Dugdale, 1887; Farrington & Welsh, 2007; Farrington et al., 1996, 1998; Hjalmarrson & Lindquist, 2009; McCord 1991, 1999; Rowe & Farrington, 1997; Van de Rakt et al., 2008, 2009, 2010). This is compounded by another scenario which could also be considered as a risk or mediating factor, namely that individuals belonging to crime families tend to serve longer sentences than non-family offenders thus indicating intense conviction patterns and a history of more serious offending.

9.2.2 Relationships and offending patterns

Offending across two generations (2G) dominates across all decades, suggesting a degree of continuity between one generation and another, likely to involve fathers and sons through vertical relationships (V) but could, in addition, also include horizontal relationships (H) between siblings, cousins and in-laws. This points to a situation where the prison population hosts a concentration of related inmates and thus the prison setting, in itself, could facilitate social interaction between related inmates. Consequently, this interaction could provide the opportunity for some sort of collusion in planning criminal activity and influence directly or indirectly crime propagation across generations of Maltese families. It is notable, also, that the individuals belonging to the relatively larger crime families (5-node to the 10+ node structure), collectively represent one quarter of the intergenerational cohort and that individuals within this cohort tend to serve longer prison terms.

Inmates belonging to crime families are not only crime-prolific, but also more likely to engage in violent crimes. Crimes such as aggravated theft and robbery feature noticeably in crime families which crimes could be enhanced through violence as a potential risk or mediating factor. Also, individuals within the intergenerational cohort commit specific crimes such as theft, robbery and drug-related crimes which require some degree of planning through which the family can serve as a network for crime and the provision of trusted accomplices. This could be influenced by the closed-knit family ties and reflect the status of the “family” as one of the main social institutions for the Maltese. Additionally, the relationship between family

membership and offence type is noteworthy. Nonetheless, the absence of “attempted offences” for the intergenerational cohort could indicate that crime is perceived as a “routine” activity through which the financial needs of the family are met and that they accomplish their activity. Having a relative with an incarceration record poses a risk to crime continuity which risk is raised when the size of the crime family increases rendering the individual within that family more crime-prolific, exerting also a direct or indirect effect on the seriousness of offending. This could be potentially accommodated through other familial factors such as the need to support each other and a strong sense of familial identity (Tabone, 1994) as well as geographical proximity, which in this context jointly directly or indirectly serve as “crime promoters” rather than “crime preventers”.

Crime continuity occurs predominately between two related individual inmates constituting the 2-node crime family which is represented by 65.8% of all crime families amounting to 409 individuals. The relationships within the 2-node include the pronounced presence of siblings through horizontal restricted relationships within a generation. This was followed by a vertical relationship between fathers and sons across two generations of restricted familial ties, as well as crime continuity between cousins which to a certain extent could be considered as extended familial ties. The concentration of siblings’ convictions and crime continuity involving at least one parent as a “crime promoter” featured also in other *family trees*, irrespective of the number of nodes echoing the findings from previous studies focusing on investigating the “linked lives” concept and the family functioning as the “well spring of crime” (Derzon, 2005).

Across all nodes the siblings’ factor (brothers) and parental (father-son) emerged markedly with the larger family structures representing crime continuity within a generation and across at least two generations. A marked spousal relationship was also registered particularly within the *çorma* family that comprised 54 nodes. In effect, the *çorma* hosts a concentration of siblings, parents and spouses. Also spouses within the *çorma* could also be parent or step-parent of children appertaining to this *family tree*. Other relationships, representing the fusion of crime families into the *çorma*, include intimate relationships between individual offenders within this relatively large crime family.

As the *family tree* size increases from the 5-node to the 10+ structure, the blend of vertical and horizontal relationships become more pronounced, representing crime continuity between siblings, fathers and sons and marriage/partnership to another crime family and consequently through the presence of in-laws. The proportion of recidivists also increases from the 5-node

to the 10+ node structures. As a result, the 10+ structure is symbolic of the fusion of crime families through assortative partnering representing complex restricted and extended familial ties. Thus highlighting that partner choice could be influenced by one's background whilst marriage/partnership is likely to happen between individuals sharing the same background. Additionally, marriage is likely to be influenced by cultural factors since partner choice is "society centred" since in-laws are often busy enquiring about prospective spouses for their children (Tabone, 1994). Also, it is noted that nine families belonging to the 10+ node host 154 individuals. In summary, similar to previous claims (e.g.: Farrington, 2002, 2011; Farrington et al., 2001), "assortative partnering" could be considered as a risk or mediating factor even more so in the *çorma*.

The *çorma* symbolises the continuity of crime across two to five generations of crime families, signifying the fusion of five individual families to this unique structure which hosts 54 individual inmates related through blood and/or marriage or partnership ties intensified through parenting or step-parenting and relationships with in-laws partaking to crime. This signifies that a brother or a father or a spouse could act as a risk or mediating factor; a phenomenon which is comparable to Ekblom's (2010) concept of "crime promoters" and "crime preventers". This is also indicative of a scenario in which as the number of nodes increases, so does the probability of crime continuity and so does the prospect for completing a crime as an accomplished task rather than serving a conviction for an attempted offence.

Additionally, the size of the crime family also has an influence on the intensity of criminal activity at the individual level, which in turn, directly or indirectly affects the seriousness of crimes attracting by a prison term at CCF. Thus, the intensive conviction patterns highlight that in the larger crime families, restricted and extended family members act as "crime promoters". However, the presence of a restricted or extended relative partaking to crime might not function as the major contributor (Bijleveld & Wijkman, 2009) in crime continuity but act as risk/mediating factors working together with other criminogenic risk factors that augment the concentration of convictions within Maltese families. Nonetheless, this could be accommodated through social labels attached to "ill-credit families", rendering the individuals within these families unlikely to go unnoticed in Malta and consequently more likely to be apprehended by the police.

Siblings, namely brothers, are more crime-prolific offenders than other offenders within the intergenerational cohort being involved in 19.2% of all convictions interned at CCF. They are

also more inclined towards serious crimes as brothers commit almost a quarter of the convictions related to theft, nearly one fifth of drug offences and also one fifth of crimes linked to violence against the person. Crimes awarded with a prison term for relationships tagged by the presence of siblings showed similar offending patterns as for spouses' convictions; with "other-justice" (sub-category of the main offence category "other") ranking as the highest frequency, followed by theft, robbery and violence against the person. Additionally, offspring are more likely to commit crimes similar to those committed by their parent/s but tend to be more prolific than their parents serving 1.4 convictions for every parental conviction. This indicates that the restricted relative, not only, serves as a risk/mediating factor, but also, the degree of social control parents exercise over their children "promotes" rather than act as a buffer to crime directly or indirectly in the closed-knit communities that characterise the Maltese islands. Convictions served by individuals belonging to intergenerational cohort in its entirety through in-depth investigation of the 2-node and 10+ node *family trees* point towards the potential influence of relationships on offending patterns. This shows that robbery, theft and drugs are specific to the intergenerational cohort. Moreover, such crimes require more planning and organisation than other crimes, where family members could help in the planning of a criminal activity. In other words, the family could serve as a crime network. This is catered for either through the provision of entrusted accomplices or incarcerated relatives acting as potential "crime promoters". Nonetheless, it is noted that drug related offences are distinctively closely linked to individuals in the 2-node structure. In summary, if family factors are not accounted for in studying the concentration of convictions, emerging crime patterns would undoubtedly be different.

9.2.3 Exposure to crime; risk/mediating factors

The exposure to a restricted incarcerated relative was investigated to evidence some sort of social interaction that could potential act as a transmission risk in crime continuity. Co-offending is more likely to be committed by unrelated inmates. However, when partners in co-offending criminal activity are related by familial links, partners are more likely to be related through brotherhood, parental relationships and marriage. In terms of crime categories, they partake of robbery, theft and drug-related offences. Co-offending involving siblings as partners could be linked to concepts such as learning by imitation (Farrington et al., 2001), the age-crime curve and siblings sharing similar backgrounds (Van de Rakt et al., 2009).

Interestingly, unlike earlier claims that co-offending between fathers and sons is rare (Farrington et al., 1996, 2009; Reiss & Farrington, 1991; Rowe & Farrington, 1997), findings from this study claim a phenomenon which could be shaped by family and cultural constructs found in the Maltese Islands and possibly not elsewhere. Also, the spouses phenomenon identified here builds on the concept of “assortative partnering” featuring in the larger family structures representing crime continuity through a blend of complex restricted and extended familial links. In this respect, co-offending could also be considered as a risk/mediating factor mechanism to crime continuity, augmented by the need the support, show loyalty and respect towards restricted and extended family members; geographical proximity; partner choice; concepts linked to “naming and shaming” and trust.

A closer look at temporal proximity between convictions shows that the incarceration of children postdates that of their parents, whereas, siblings are more likely to be interned during the same time frame. The accumulation of siblings’ convictions among Maltese offenders, in line with findings from the Van de Rakt et al. (2009) study similarly shows that such a scenario increases the likelihood of offending. In summary, social interaction and exposure to crime augments the risk of crime continuity and renders one more crime-prolific, even more so when one considers that children received more convictions than their parents. This could be influenced by restrictions which render it difficult for one to detach from kinship ties whether restricted or extended and consequently limiting one from “escaping the family tradition” (Tabone, 1994) in Malta. Also, whilst offenders in general commit different types of crime, yet findings here show that inmates belonging to crime families commit similar offences and tend to follow similar “career” paths. This could be linked to potential learning, situations where families serve as crime networks and the degree of social control Maltese parents have over their children (Abela, 1991).

Exposure to crime was also investigated spatially, the findings from which indicate that geographical proximity, particularly for the sibling and parental relationships for the 2G crime families, facilitates social interaction between individuals committing crime. Such interaction could indirectly promote crime. Additionally, this could be stimulated by other geographical and criminogenic factors where the community serves as an “activity field” hosting a concentration of crime families in close-proximity, who, in themselves as crime models, act as a risk/mediating factors in crime continuity. Escaping from such a criminogenic environment could be challenging whilst exposure to other incarcerated relatives and other crime families

in the neighbourhood, could lead to crime being perceived as a normal activity closely linked to the concept of “cumulative learning” and related disadvantages.

Individuals within the 10+ node structure tend to setup residence in Valletta and Bormla. On the other hand, Valletta is also a home town to individuals belonging to 2-node crime family, characterised, predominantly by siblings as brothers and fathers-sons. However, Qormi ranks first for the 2-node structures though Birkirkara is also a major home town for individuals within the 2-node structure preceded by Valletta. The use of Craglia et al.’s (2000) methodology, employed to study the concentration of crime families in towns represented by local councils in the islands, employing national rate calculations revealed interesting trends. Offenders belonging to the intergenerational cohort concentrate in Bormla, Valletta and remarkably the relatively new town of Santa Lucija. The phenomenon of Santa Lucija as a hub for crime families featured for the first time in this Malta study.

Bormla, Valletta and Santa Lucija could serve as an “activity field” (Wikström, 2008) providing opportunities for crime networks and exposure to crime through the presence of other crime families characterised by a cluster of convictions. Also, other social and crime constructs such as poverty pockets, social stigma and social constraints within these neighbourhoods could blend well with neighbourhood and geographical factors easing the role of the “crime promoter” and thus stimulating the propagation of crime across generations. This is compounded by the finding related to exposure to crime through analysing community presence considering that 72% of the individuals belonging to crime families spend 91% of their lifetime within the community as against incarceration-time. In other words, the neighbourhood as an “activity field” could provide crime opportunities, crime networks, as well as models for crime. This also explains the presence of the concentrations of crime families in the neighbourhoods of Bormla, Valletta and Santa Lucija hosting individuals and families sharing similar backgrounds which act as potential “crime promoters”, where in such a “bad environment” one is more crime-prolific.

One has to consider that Formosa (2007) identified Valletta and Bormla as offender residence hotspots characterised by poor collective efficacy and socio-economic constraints, findings further analysed by this study that clearly show that these localities also host a concentration of crime families. Additionally, whilst employing Shaw and McKay’s (1942) social disorganisation framework than one could claim the presence of “transgenerational transmission” in Valletta and Bormla since these localities retain their criminogenic

characteristics across generations. The setting, in this case these home towns having concentrations of crime families, could promote crime as the criminogenic factors within these neighbourhoods influence significantly those individuals who are crime prolific (Wikström et al., 2010), such as individuals belonging to crime families. Thus, in crime hotspots, one would expect that residents manifest a high crime propensity, whilst in other residential areas which are not classified as crime hotspots, residents' crime propensity is low (Falk & Fischbacher, 2002). This explains why it could be difficult for crime families residing in offender-residence hotspots to escape from the criminogenic environment.

The identified poverty hotspots host 40.8% of individuals in crime families whereas offender-residence hotspots host 46.9% of individuals belonging to the intergenerational cohort for the 2000s decade. This said, interestingly 24.5% lived in residences in intersecting poverty and offender-residence hotspots particularly in Valletta, Zebbug (Malta), Qormi, Zabbar, Bormla and Santa Lucija. Also, the spatial location of crime families could be considered as an indirect risk factor mechanism influenced by other socio-economic aspects such as poverty and unemployment as risk/mediating factors though not specific to intergenerational continuity. However, this blend of "crime promoters" could potentially explain the concentration of convictions in families and crime propagation across generations of families, particularly in neighbourhoods characterised by "transgenerational transmission". These neighbourhoods could attract individuals and families with shared characteristics and who consequently feel 'socially accepted' in these localities. Also, considering the close-family ties, one would opt to live close to parents and siblings and also get married to someone from his/her hometown. Additionally, such a choice could be constrained by financial matters related directly to housing, since cheap housing and squatting are present in Valletta and Bormla.

A closer look at individual and economic risk and mediating factors shows that offenders, irrespective of cohort alliance, show similar literacy patterns, likely to have followed compulsory schooling (5-16 years) in a local state school and unlikely to opt for post-secondary and tertiary education. Particularly interesting, are the trends related to unemployment since economic inactivity is greater for crime families as compared to the non-family component and also when compared to national unemployment rates. Also, the crimes committed by the intergenerational cohort, such as conversion of multa (other-justice), robbery and theft could serve as a source of income for crime families considering that such families are more prolific, show higher recidivism frequencies and thus serve longer prison terms. These financial needs of crime families could be met through criminal activity to a greater extent than inmates

belonging to the non-family component, where the latter are more likely to be employed even if in the lowest paid jobs.

Further analysis shows that the larger crime families (10+) show distinctive socio-demographic profiles since 74% of those belonging to this node structure were not in employment. This could be explained in terms of potential labelling of crime families in a country where it is practically impossible to go unnoticed and people are identified through nicknames and familial identity, which in this case deters potential employers. Social isolation, poverty and unemployment claimed to be family stressors in this respect indirectly promote crime. In other words being economically inactive for a considerable period could be considered as a risk/mediating factor to crime continuity and intense conviction patterns as turning points and opportunities for desistance are restricted thus limiting one's opportunity to lead a conventional lifestyle. Additionally, resorting to legitimate means to earn a living would not be economically viable for crime families. This could be catalysed by other familial constructs such as family members providing false alibis since it is quite unlikely to name and shame an investigated restricted or extended relative along with the expression '*il-hwejjeġ maħmugin jinħaslu d-dar*¹³⁹' and the feeling of 'omerta' typical of Mediterranean cultures.

9.2.4 Findings - an overview

The occurrence of multiple risk factors simultaneously identified in this study includes:

- i) incarcerated sibling, parent and/or spouse;
- ii) exposure to a criminogenic environment and social networks between inmates at the community level as well as inside CCF;
- iii) intense conviction patterns and large crime families;
- iv) tendency towards serious crimes;
- v) crime prolific, recidivism and long prison sentences;
- vi) economic inactivity; and
- vii) residing in neighbourhoods laden with crime families, poverty pockets and offender-residence hotspots.

These are accommodated by geographical proximity, insularity typical of Mediterranean cultures, closed-knit familial ties and the strong sense of identity in Malta that feature in

¹³⁹ Family matters and problems are tackled and sorted out within the family.

“activity fields” whether at the family level or at the community level. These stimulate a scenario where “causes of causes” (Wikström, 2008) act as direct or indirect transmission risks to crime continuity. This is manifested in the levels of criminal propensity at the individual level and the concentration of convictions within a relatively small number of crime families. It has been claimed that as social beings, humans are exposed to a series of risk and mediating factors that do not work in isolation and consequently their influences are often intertwined (Besemer, 2012). Additionally, their effects are expected to influence more those who are prolific, in this case individuals belonging to crime families, rendering it difficult for one to escape from a criminogenic environment. In this respect, crime continuity across generations of Maltese families is related to situations tied to the concept of a transmission of constructs linked to “readiness to offend” (Ekblom, 2010). Thus, the family serves as a network for crime in a number of ways such as the provision of crime role models, trusted accomplices and a predisposition towards offending as a “routine” activity to meet financial needs. In summary, the family has a role to play in crime continuity in the Maltese islands. This said, more studies need to be undertaken as the risk/mediating factors identified as potential crime promoters are not exclusively specific to intergenerational transmission of offending but are applicable to offending in general.

9.3 Limitations of the study

This section presents the limitations for this Malta study which were identified in the process of the research and which will also serve as a launching pad for the furthering of studies in the intergenerational genre.

The analysis presented in this study focuses solely on convictions awarded by a prison term at CCF. This is linked to the fact that CCF has an analogue database of all inmates interned at CCF covering the whole study period and also the availability of the Formosa database which includes extensive information from the ledgers available in digital form. However, the Law Courts, Probation Services and the Malta Police do not have such databases covering all other convictions. Subsequently, the prison population analysed here is only a subset of the offending population in Malta. This said, the intergenerational database created for this study could be strengthened further in future research through the inclusion of information of all convictions. This could be employed through the organisation and cataloguing of the

information that is stored in the Law Courts, Probation Services and the Malta Police within an integrated information system. Without an integrated information system, the study will be restricted solely to the prison statistics. The data integration process would allow for the creation of databases that do not exist to date and eventually could be used in studying further intergenerational continuity in offending in Malta.

Additionally, the research design employed in this thesis does not allow for the study of gender specific issues and gender specific transmission mechanisms. Thus the findings presented here do not yield additional information on potential gender-related intergenerational issues; a research gap identified in the literature and which is also the case for Malta. Without information availability spread over a number of years, such studies are not possible with the data available. Nonetheless, through this study's data process, this research gap could be addressed since a robust intergenerational database has been created that will serve as the launching pad for such studies, which allows for the identification of a sample of intergenerational males and females together with their offspring (sons and daughters) who could be studied prospectively and retrospectively over a number of years.

On the other hand, the concentration of offending vis-à-vis the wider national spectrum was not explored in the absence of a control group from the general Maltese population. The identification of a control group was not feasible in the absence of a criminal career database. Also, the process of identification of a matched control group was not clear. Since this retrospective design relied to a great extent on archived information, the identification of a control group would be made possible through a prospective longitudinal design studying a sample of individuals from the general population. This would account for the inclusion of law-abiding citizens in addition to offenders in order to investigate further continuity and discontinuity of familial offending. This would set the foundation for the creation of a criminal career database, where the use of a control group through longitudinal prospective methods would also address the underlying transmission mechanisms pertaining to intergenerational offending.

The information stored within the intergenerational database and the Formosa database (secondary source) do not allow for the study of a number of risk and/or mediating factors. These include a number of potential transmission risks such as biological aspects; upbringing issues; parenting styles; quality of relationships between restricted and extended incarcerated relatives; potential labelling of crime families; personal (self-control), social (morality) and

peer risk factors and the close monitoring of crime families by the police and at community level. Also, the individuals investigated in this study are “treated” to a great extent as a statistical entity since the data and methods employed do not allow for studying personal relationships and “live” social networks between individuals within a crime family as well as “actual collusion” between different crime families. This lack of information results in a situation where direct learning and/or direct exposure to crime role models were not explored. Findings presented in this thesis do not add information on the nature-nurture debate, do not outline whether parents and children experienced good relationships and it is not known to what extent restricted and extended relatives “influenced” each other’s criminal activities. Additionally it is unclear whether siblings were exposed to the same environment and constraints. Other phenomena such as individual (such as self-control) and social (such as labelling) risk factors that could act as potential crime promoters in intergenerational offending were not studied. The risk-factors limitations outlined here are to a great extent related to methodological constraints such as the lack of data/databases (not necessary related to the criminal justice system) and restricted access to potential informants in Malta. Also, a prospective longitudinal design requires data being collected progressively over enough years necessary to cover at least two generations. This said, embarking on a long-term extensive project employing a longitudinal design that allows for studying trajectories such as the Nagin’s (2005) “semi-parametric group trajectory and methodology” that would aim to answer these research gaps. This could be carried out through the identification of a G2 sample, studying retrospectively their parents (G1) and prospectively their offspring (G3) employing quantitative (crime data; socio-economic; residential) and qualitative (interviews with parents and teachers; self-reports; questionnaires; psychological tests) research tools.

The research design employed for this thesis did not allow for distinguishing between risk and mediating factors and neither does it facilitate exploring the temporal sequence of risk/mediating factors. Thus it not known which factor/scenario acted as the initial crime promoter. Nonetheless, findings do not point towards the identification of the risk factors that activate crime in general and the “causal links” (mediating factors) in the intergenerational transmission of offending. However, even though it was not possible to differentiate between the two mechanisms, findings show that the simultaneous presence of multiple risk and mediating factors promotes crime continuity through a constellation of factors. It is to be highlighted that intergenerational research falls short of studies that explain how and why crime runs in families and the implications are that it is difficult to identify which risk factors and

which combination of risk factors explains intergenerational transmission. This could be taken up in future studies through the identification of a G2 sample, studying retrospectively their parents (G1) and their children (G3) prospectively. Also, such future designs could examine static versus dynamic theories so as to study the influence of timing and frequency of parental criminal behaviour on their offspring's offending over the life-course. In summary, this allows for an investigation of the mechanisms of intergenerational transmission of crime through studying a series of risk factors to crime continuity.

The spatial analysis presented in this thesis does not yield information on potential migratory trends of crime families and/or individuals within crime families to and from the sixty eight localities in the Maltese islands and neither does it explore the migratory trends vis-à-vis poverty and offender hotspots. Consequently, findings emanating from the spatial analysis offer indications of environmental factors as indirect transmission risks to crime continuity. This scenario has been greatly influenced by lack of data on residential movements over the decades and only data for the 2000s was explored. Future research could take up the study of migratory patterns of crime families and individuals belonging to crime families by decade and over the entire lifespan so as to study further the potential influence of environmental factors on criminal propensity at the individual level as well as intergenerational offending. This could be tackled through the inclusion of mapping exercises emanating from the previous decades' welfare data, housing and education data, amongst others, which also requires the compiling of digital databases.

9.4 Policy Implications

The creation of an intergenerational database as a primary source of data for this study, required long-term field research and work, particularly related to identifying the nature of restricted and extended relationships in crime families over six decades. This rich database could be used by other researchers to study intergenerational continuity of phenomena not necessary crime related. Also, this could be strengthened by embarking on a long-term project, possibly funded through national and/or EU funds, which caters for the creation of a criminal career database through employing prospective longitudinal designs pivotal to study criminal trajectories. Such would provide a richer databank for policy makers, particularly those focusing on family and

welfare, education and employment through the identification of early childhood risks, conduct problems and later adjustment problems.

An increasing number of children are expected to have their parents behind bars in Malta since the number of inmates at CCF has increased across the decades. On the other hand, most of the convictions served by crime families involve siblings. However, it is to be highlighted that inmates' families have never availed themselves from a service that addresses their needs particularly those related to reintegration in their community. Also, there are few initiatives run by NGOs that provide their service to a relatively small target population or else they operate within a specific community. Additionally, crime families are more crime-prolific and as recidivists are more likely to experience social constructs related to "social exclusion". Recidivists face a lot of challenges and restrictions imposed by their family background and through interaction with "crime role models" within their neighbourhoods. These collectively limit their opportunity to lead a conventional lifestyle which may ultimately point to social inclusion. Such challenges include job related factors, re-establishment of relationships following incarceration and also emotional issues regarding where and in which context ex-convicts are socially accepted, a situation that could also be compounded by labelling.

Findings from this study point towards initiatives at meso and macro level that could be taken on board by policy makers through a policy approach that facilitates the interconnectedness between human agency and social structures within the Maltese islands.

- a. Education and Employment: the provision of training programmes for inmates that provide them with skills that render them employable. The need is felt to tackle the unwillingness of potential employers to engage ex-inmates (Formosa et al., 2013) and that the civil service's requirement of not having a criminal record entails a re-thinking of related policies on a national level to enable employment. Education and employment factors have for long been identified as "crime preventers" whilst their absence or deficit is linked to "crime promoters" (Ramakers et al., 2011). Through adopting a risk and mediating factor approach, these social constructs could serve as turning points providing one with the opportunity for change, social mobility and possibly earning a living through legitimate means.
- b. Marriage, family and neighbourhood factors: Sampson and Laub (1993) claim that marriage has a positive effect in reducing crime. However, one has to consider the

increasing incidence of marital breakdown and cohabitation, in addition to the finding that assortative partnering facilitates crime networks in Malta. Care plans on individual inmates interned at CCF should take into consideration relationship factors and the potential impact of imprisonment on restricted family members. Such a scenario is compounded by other drawbacks since certain neighbourhoods host a concentration of crime families and are characterised by social stigma and poverty pockets. Such calls for a re-thinking of policies related to neighbourhood factors and social housing in Malta.

- c. Crime policies: The “*What Works?*” research has put rehabilitation back on the agenda focusing on the reintegration of ex-offenders to society’s mainstream. On the other hand, other research claiming that “*Nothing works*” has undoubtedly questioned rehabilitation initiatives. It is noted that to date in Malta incapacitation of offenders is central to penal policy. Also, the new Restorative Justice Act is intended to rehabilitate inmates; however, such cannot be accommodated in one prison setting (only the younger cohorts are interned at YOURS in another part of the island of Malta since end of 2013). The increasing number of convictions across the decades bears witness to a situation that, despite the few alternatives to imprisonment (mainly probation, suspended sentence and community service orders; custodial sanctions are more popular than non-custodial ones in Malta. Also, CCF as it is to date does not cater for a proper classification of offenders and the top management posts of CCF are often occupied by police officials. This is also sending mixed messages about the role of the CCF as a correctional facility.
- d. Other issues impeding rehabilitation include the social interaction between individual inmates belonging to crime families which could allow for some sort of collusion in the planning of criminal activity within the walls of CCF thus perpetrating the cycle. Additionally, one has to consider the impact of the number of convictions related to conversion of multa and unpaid legal fees on the prison population and its impact of extended stays in prison. This implies that rehabilitation needs to be part of the agenda of policy makers in Malta, moving away from the philosophy that once the offender receives his “just desert” s/he is not an active citizen.

9.5 Recommendations for future research

The study process highlighted various requirements for further research in the field of intergenerational research, which would include:

- a. To study the extent of intergenerational continuity in the light of the realm of crime at a national level including crimes not sanctioned by a prison term as well as focusing on gender specific pathways;
- b. To explore whether crime is a means of identity for crime families and whether labelling increases the probability for individuals belonging to crime families to be termed as suspects and apprehended;
- c. To explore the temporal sequence of risk factors adopting a trajectory approach, also taking on board other risk factors such as the influence of peers; violence; quality of parenting; timing and intensity of convictions. It is yet unknown which combination of risk factors explains how and why crime runs in families;
- d. To investigate crime propagation employing the criminal career methodology to account for the cause and effect factors of school experiences, employment history, social interaction, attitudes and behaviours, self-control, quality of relationships within families, opportunities and stumbling blocks in the life-course;
- e. To study whether family type, family processes and economic factors influence crime propagation across generations;
- f. To explore biological factors so as to delve in-depth into the nature-nurture debate;
- g. To study the influence of the conversion of fines and multa on the composition of the general prison population and to identify to what extent crime families could be involved in organised crime;

- h. Future research should take into account age, amnesties and days yet to be spent at CCF as per sentences which are still being served to study the influence of the community on the individual inmate and crime family;
- i. To explore the frequency of parental convictions before and after the birth of a child and throughout childhood;
- j. Future research should focus on studying recidivism employing different methods. These could include analysing the difference between reoffending and reconvictions examine the time interval between re-convictions and study any differences in the seriousness of offending from one conviction to another.
- k. To explore potential migratory trends of crime families and individuals within the respective crime families across decades so as to study the potential influence on intergenerational continuity and criminal propensity at the individual level.
- l. Future work should focus more on studying “what is being transferred across generations”. Ekblom’s Conjunction of Criminal Opportunities (CCO) theory (2010) is undoubtedly under-investigated in intergenerational crime research. Are continuities and discontinuities in offending and convictions related directly or indirectly to “readiness to offend”?

9.6 Conclusion

Crime continuity across generations of Maltese families is linked to the transmission of multiple risk and/or mediating factors tied closely to the concept of “readiness to offend”. The presence of multiple crime promoters simultaneously represents a scenario where these constructs accumulate to stand for “causes of causes”. Subsequently, these crime promoters act as direct and/or indirect transmission risks to crime continuity limiting one’s opportunity for change through a cumulative effect.

In this Malta study, a number of “crime promoters” have been identified as risk and/or mediating factors in the cycle of crime propagation. These include having an incarcerated

sibling, parent or a spouse or a combination of any of these three relationships. Interestingly, the risk is augmented by the increased presence of incarcerated relatives which also have an indirect effect on seriousness of offending. A highly interesting finding relates to the collusion and interaction between individuals belonging to different crime families through assortative partnering, parenting and extended familial ties. Also, exposure to crime and social interaction with incarcerated relatives within CCF and in the wider social context were also identified as transmission risks. Additionally, other factors include being crime prolific, having a history of intense conviction patterns, serving longer prison sentences, higher recidivism rates and belonging to the larger crime families. Nonetheless, economic inactivity and living in areas laden with crime families, poverty and offender hotspots have also been identified as crime promoters. The effects of these both risks and mediating factors are intertwined, influencing mostly individuals in crime families whilst rendering it difficult for one to escape from the criminogenic environment.

Interestingly, one in every three inmates interned at CCF belongs to the intergenerational cohort. Another major finding is that a small number of families are responsible for the larger share of prison sentences. Findings show that crime runs and concentrates in a small component of Maltese families. The family serves as a network of crime in a number of ways; where incarcerated relatives act as crime promoters, planners and the providers of trusted accomplices. This is also accentuated through the predisposition towards offending as crime is deemed as an activity through which the financial needs of the family are met.

In this study the creation of a solid intergenerational database sets the foundation for studying other intergenerational phenomena not necessarily crime related. This also points towards a number of initiatives that could be taken on board in future research and policy making.

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Appendices

Appendix 1 Studies and Findings by country

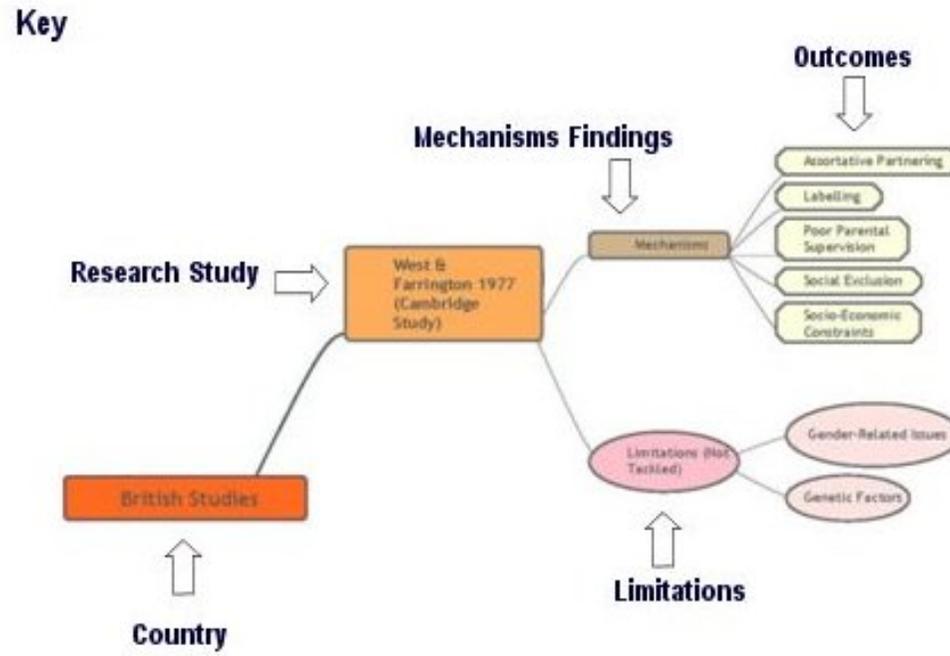


Figure Key

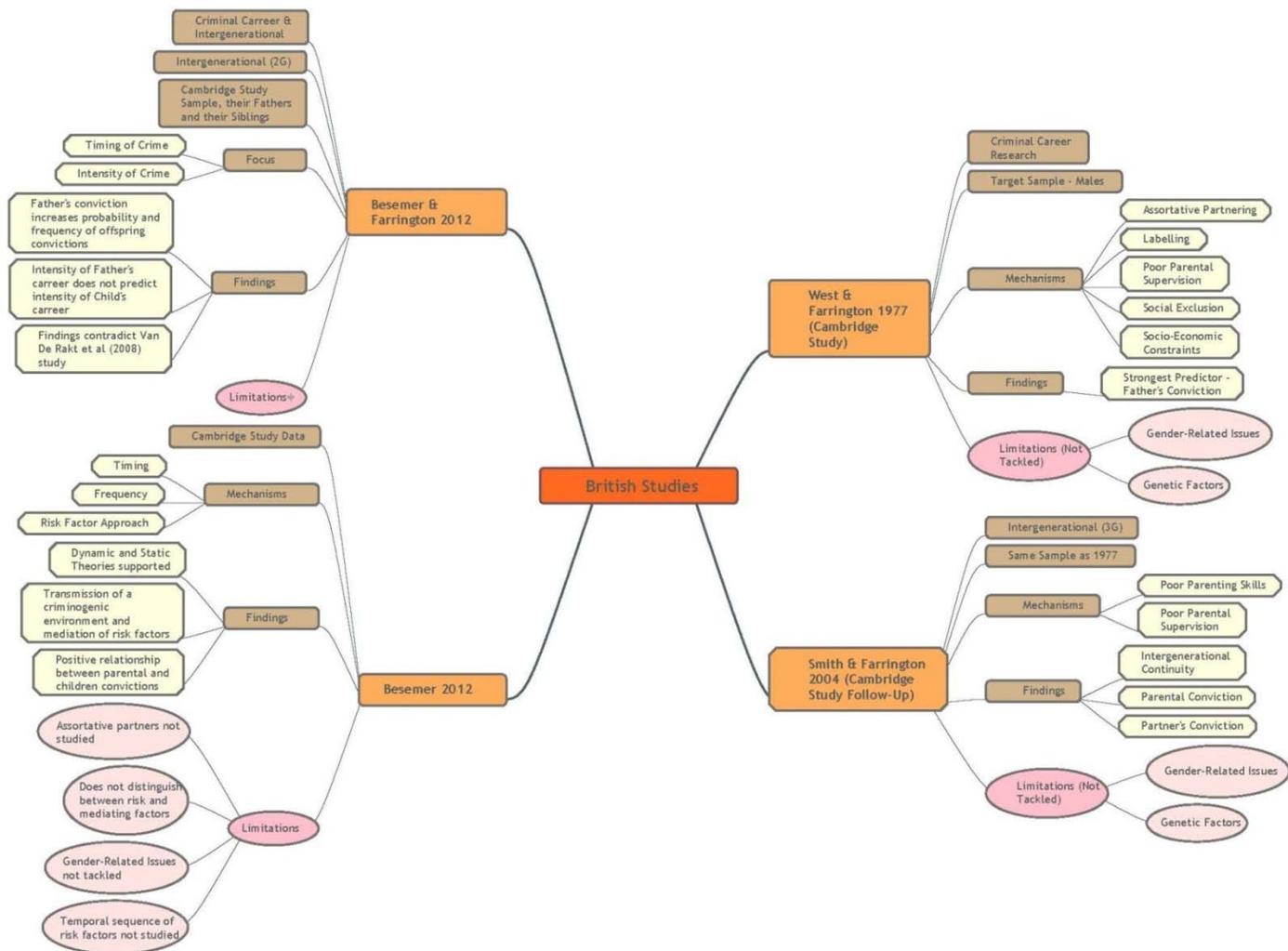


Figure 1: British Studies Consolidation

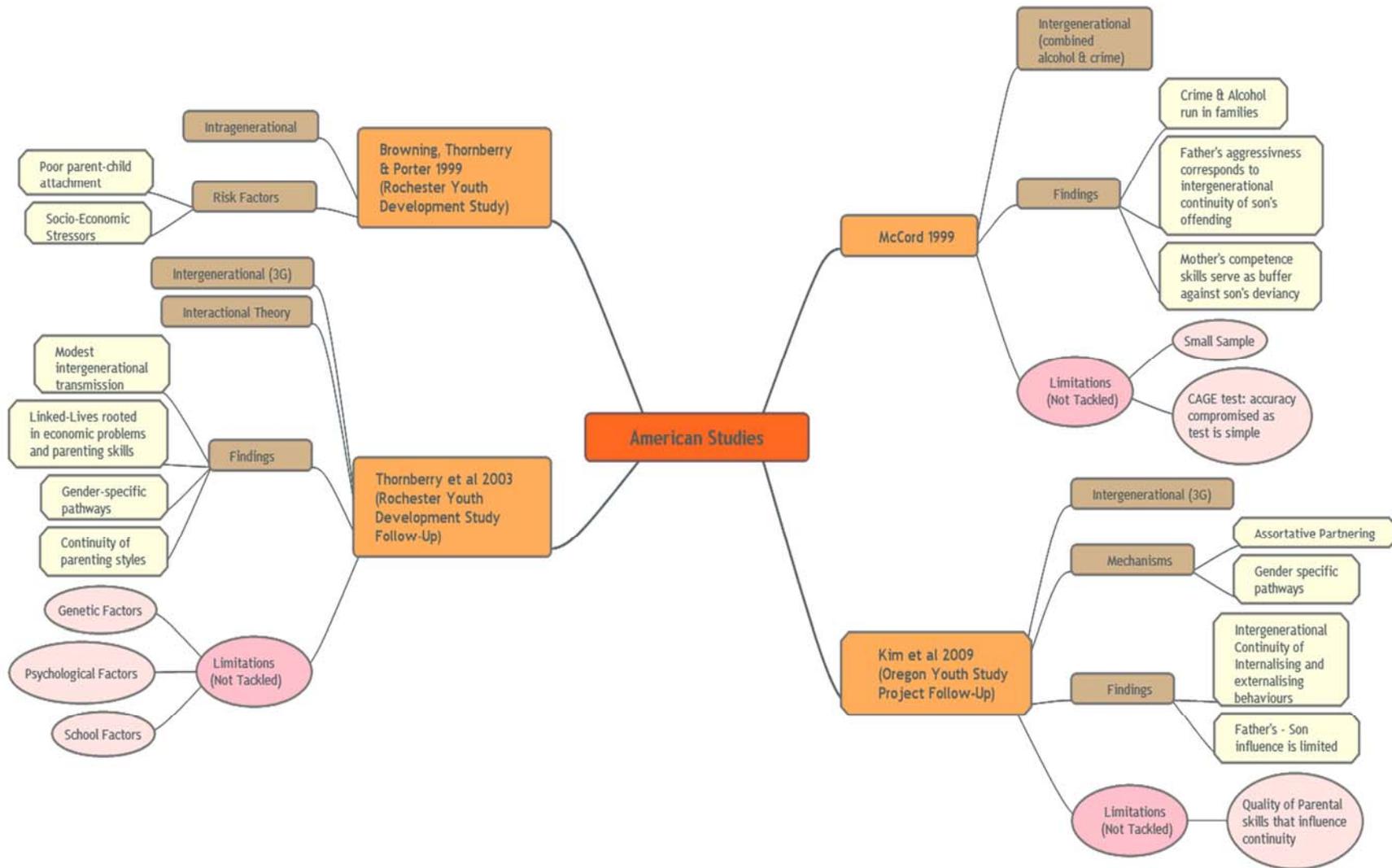


Figure 2: American Studies Consolidation

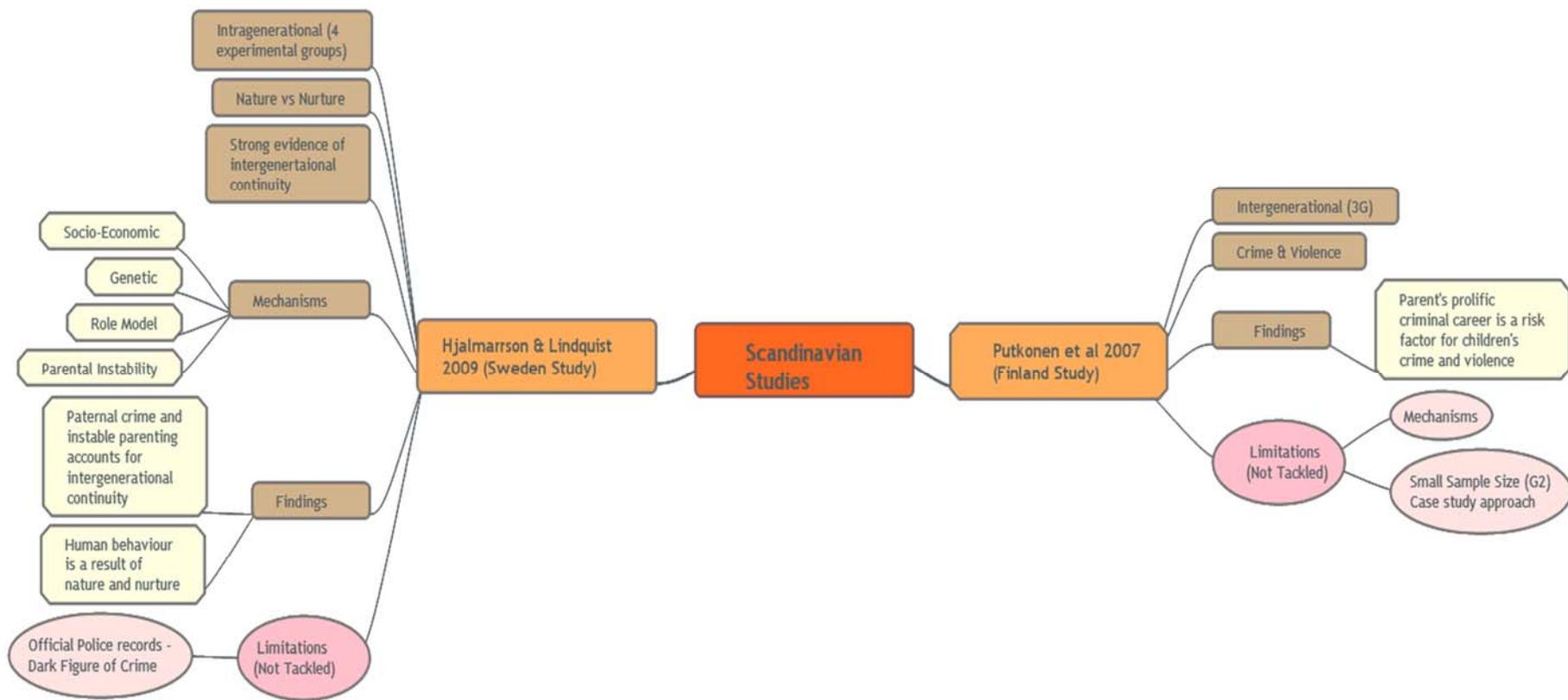


Figure 3: Scandinavian Studies Consolidation

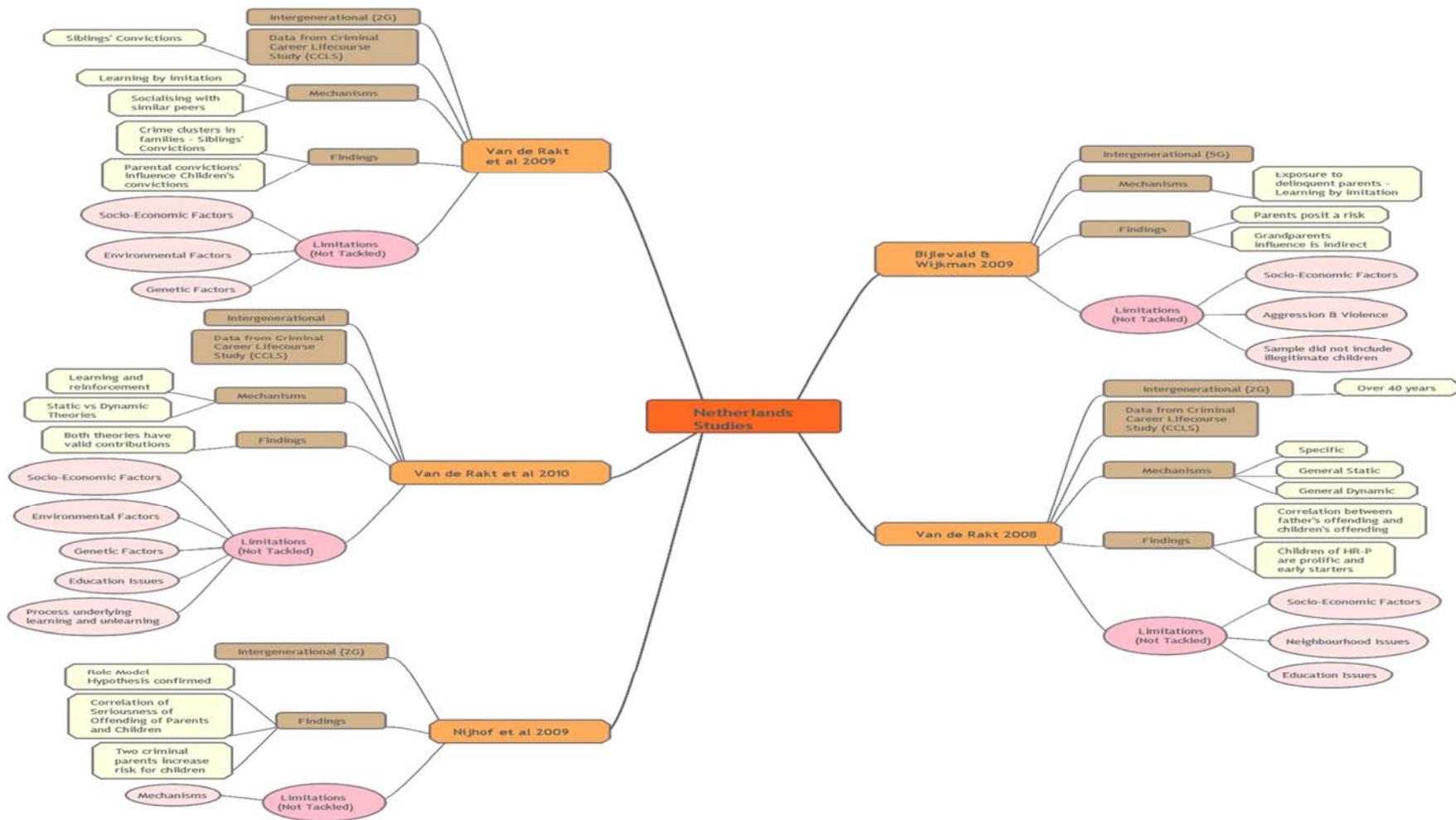


Figure 4: Netherlands Studies Consolidation

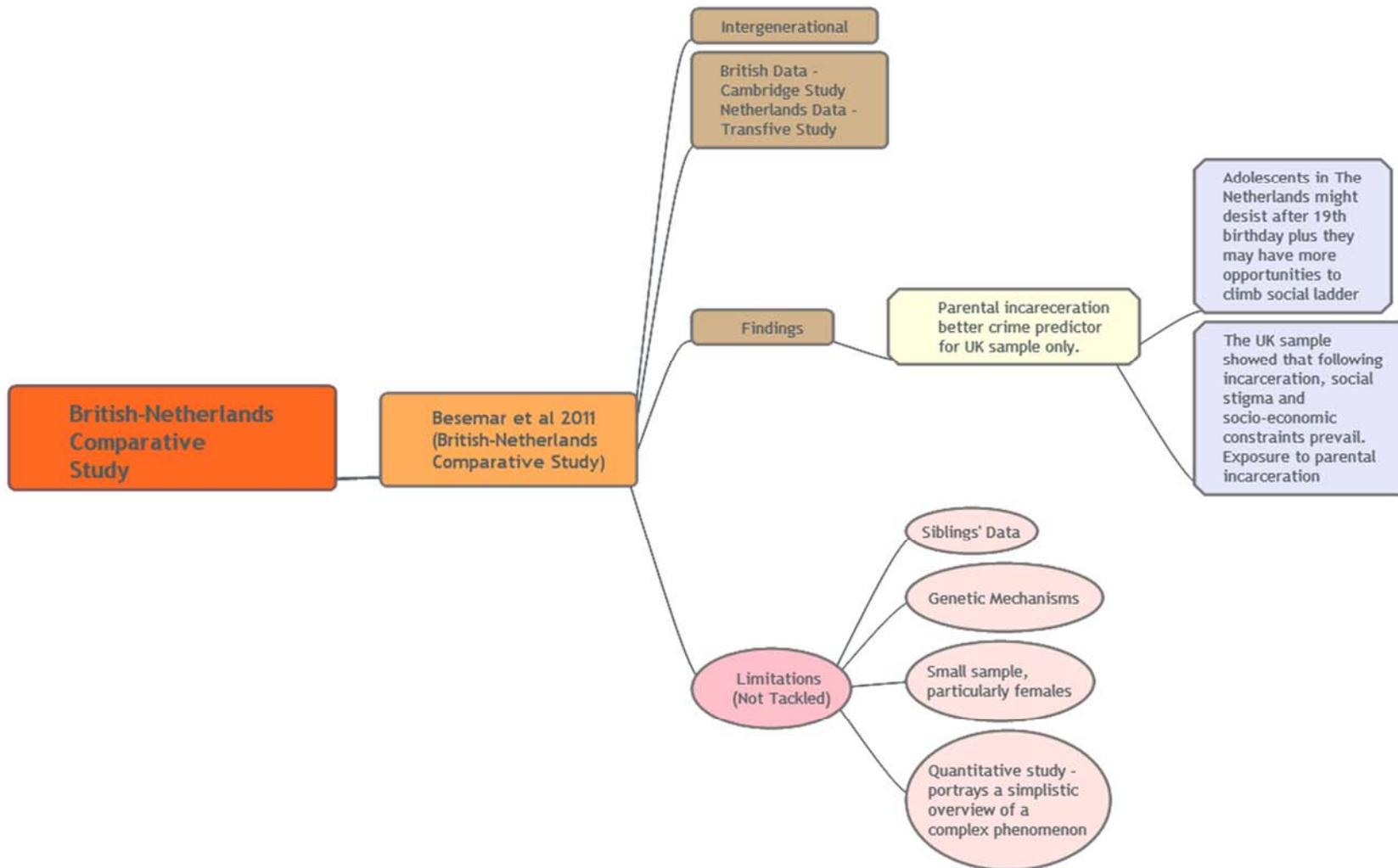


Figure 5: British-Netherlands Comparative Consolidation

Appendix 2 Crime Categories based on PIRS and Formosa (2007)

Table 1: Crime Categories based on PIRS and Formosa (2007)

OFFENCE_DESCRIPTION	MAIN_GROUP	SUB_GROUP
Attempted bribery	Attempted	Attempted
Attempted corruption of Public officer	Attempted	Attempted
Attempted Illegal arrest/detention	Attempted	Attempted
Attempted offences	Attempted	Attempted
Attempted to drive a car without permission	Attempted	Attempted
Other attempted offences (other than 2b, 2c, 7b, 11b, 12b, 14b, and 14c)	Attempted	Attempted
Attempted corruption of athlete	Attempted	Attempted - Sports
Accomplice in Aggravated burglary in a dwelling	Burglary	Burglary - Dwelling
Aggravated burglary in a dwelling	Burglary	Burglary - Dwelling
	Burglary	Burglary - Dwelling
Burglary in a dwelling (Theft from Residence)Aggravated burglary in a building other than dwelling	Burglary	Burglary - Other
Entering with intent to commit felony	Burglary	Burglary - Other
Theft from factories	Burglary	Burglary - Other
Arson	Criminal damage	Criminal damage
Attempted arson	Criminal damage	Criminal damage
Complicity in Criminal damage by explosion	Criminal damage	Criminal damage
Criminal damage by explosion	Criminal damage	Criminal damage
Criminal Damage Endangering Life	Criminal damage	Criminal damage
Criminal damage to building other than dwelling	Criminal damage	Criminal damage
General damage (Other criminal damage)	Criminal damage	Criminal damage
Malicious Use, & c. of Explosives	Criminal damage	Criminal damage
Racially or Religiously aggravated criminal damage to other building	Criminal damage	Criminal damage
Complicity and conspiracy in possession and trafficking of drugs	Drugs	Drugs
Cultivation of controlled drugs	Drugs	Drugs
Drugs Offences	Drugs	Drugs
Importation of drugs	Drugs	Drugs
Other drug offences	Drugs	Drugs
Possession of controlled drugs	Drugs	Drugs
Trafficking in controlled drugs	Drugs	Drugs
Attempted fraud	Fraud and Forgery	Fraud and Forgery
Cheque & credit card fraud	Fraud and Forgery	Fraud and Forgery
Complicity in forgery	Fraud and Forgery	Fraud and Forgery
Complicity in fraud	Fraud and Forgery	Fraud and Forgery
False accounting	Fraud and Forgery	Fraud and Forgery
Forgery (Misdemeanour)	Fraud and Forgery	Fraud and Forgery
Fraud and Forgery	Fraud and Forgery	Fraud and Forgery
Obtaining by false pretences	Fraud and Forgery	Fraud and Forgery
Other forgery	Fraud and Forgery	Fraud and Forgery
Other fraud	Fraud and Forgery	Fraud and Forgery
Other Frauds (government-related)	Fraud and Forgery	Fraud and Forgery
Uttering Counterfeit Coin	Fraud and Forgery	Fraud and Forgery
Vehicle/driver document fraud	Fraud and Forgery	Fraud and Forgery
Other indictable offences	Other	Other

OFFENCE_DESCRIPTION	MAIN_GROUP	SUB_GROUP
Cruelty to animals	Other	Other - Creatures
Education offences (absent from school)	Other	Other - Educational
Begging	Other	Other - Financial
Betting, gaming, lotteries	Other	Other - Financial
Customs and Revenue offences	Other	Other - Financial
Debtor's Arrest on Demand by Other Party	Other	Other - Financial
Trade descriptions etc	Other	Other - Financial
Adulteration of food	Other	Other - Health
Drunkenness	Other	Other - Health
Public health offences	Other	Other - Health
Accomplice in escape from prison	Other	Other - Justice
Bail offences (inc. Probation, Conditional Discharge, Suspended Sentence, Art 12, 22, 23, Chap 152)	Other	Other - Justice
Blackmail	Other	Other - Justice
Bribery, Treating and undue influence	Other	Other - Justice
Complicity in blackmail, etc	Other	Other - Justice
Complicity in bribery	Other	Other - Justice
Conversion of Multa/Ammenda/Fine/Referee's fees(Court Expert)	Other	Other - Justice
Corruption of witness	Other	Other - Justice
Disclosure, Obstruction, False or Misleading Statements etc	Other	Other - Justice
Escape and rescue	Other	Other - Justice
Illegal arrest/detention	Other	Other - Justice
Kidnapping	Other	Other - Justice
Libel	Other	Other - Justice
Other offences against public justice and the administration of justice (inc. recidivism)	Other	Other - Justice
Perjury and false swearing	Other	Other - Justice
Blasphemy	Other	Other - Sentiment
Crimes against religious sentiment	Other	Other - Sentiment
Immoral/obscene words	Other	Other - Sentiment
Kept a brothel	Other	Other - Sentiment
Obscene publications, gestures	Other	Other - Sentiment
Corruption of athlete	Other	Other - Sports
Abandoned ship	Other	Other - State
Abuse of public authority	Other	Other - State
Corruption of Public officer	Other	Other - State
Crimes against public peace (Disturbance)	Other	Other - State
Desertion	Other	Other - State
Electoral offences	Other	Other - State
Firearms Acts offences	Other	Other - State
Going equipped for stealing, etc.	Other	Other - State
Illegal assembly	Other	Other - State
Immigration offences	Other	Other - State
Malversation (Misconduct) by public officer	Other	Other - State
Other offence against the state or public order	Other	Other - State
Other Offences	Other	Other - State
Piracy	Other	Other - State
Planning and environment laws	Other	Other - State
Poaching/hunting/trapping related	Other	Other - State
Riot	Other	Other - State
Safety of the government	Other	Other - State

OFFENCE_DESCRIPTION	MAIN_GROUP	SUB_GROUP
Sharp Instrument offences (UK = Knives Act 1997 offences)	Other	Other - State
Trespassing, entering property without permission, entering restricted area	Other	Other - State
Violation of places of confinement	Other	Other - State
White slave traffic	Other	Other - State
Dangerous driving	Other	Other - Transport
Driving without a licence	Other	Other - Transport
Traffic offences	Other	Other - Transport
Accomplice in Robbery (Aggravated theft)	Robbery	Violence - Robbery
Aggravated theft	Robbery	Violence - Robbery
Attempted aggravated theft	Robbery	Violence - Robbery
Robbery of the Person	Robbery	Violence - Robbery
Abstract Electricity	Theft	Theft - Other
Attempted theft	Theft	Theft - Other
Complicity in theft	Theft	Theft - Other
Embezzlement	Theft	Theft - Other
General theft (Other theft and unauthorised takings)	Theft	Theft - Other
Handling stolen goods	Theft	Theft - Other
Proceeds of crime	Theft	Theft - Other
Snatch and grab	Theft	Theft - Other
Theft from Person	Theft	Theft - Other
Theft of Horses and Cattle, Animals	Theft	Theft - Other
Theft of Pedal Cycle	Theft	Theft - Other
Theft from bars/hotels	Theft	Theft - Retail
Theft from retail outlets	Theft	Theft - Retail
Theft from Shop	Theft	Theft - Retail
Aggravated theft of seacraft	Theft	Theft - Seacraft
Theft from seacraft	Theft	Theft - Seacraft
Theft of seacraft	Theft	Theft - Seacraft
Aggravated theft from vehicle	Theft	Theft - Vehicle
Aggravated vehicle taking (TWLA)	Theft	Theft - Vehicle
Attempted Theft of/from a Vehicle	Theft	Theft - Vehicle
Theft from Vehicle	Theft	Theft - Vehicle
Theft or unauthorised taking of motor vehicle	Theft	Theft - Vehicle
Assault/Resist Police Officer (constable)	Violence against the person	Violence - Common
Common assault (no injury) (S39)	Violence against the person	Violence - Common
Violence against public officer	Violence against the person	Violence - Common
Homicide	Violence against the person	Violence - Homicide
Infanticide	Violence against the person	Violence - Homicide
Manslaughter	Violence against the person	Violence - Homicide
Murder	Violence against the person	Violence - Homicide
Other Homicide	Violence against the person	Violence - Homicide
Abuses relating to prison	Violence against the person	Violence - Other
Applied poisonous substance	Violence against the person	Violence - Other
Assault occasioning Actual Bodily Harm (S47)	Violence against the person	Violence - Other
Attempted abortion	Violence against the person	Violence - Other
Attempted concealment of birth	Violence against the person	Violence - Other
Attempted Hold-Up	Violence against the person	Violence - Other
Concealment of birth	Violence against the person	Violence - Other
General bodily harm (Other Assaults / Woundings)	Violence against the person	Violence - Other
Harassment	Violence against the person	Violence - Other

OFFENCE_DESCRIPTION	MAIN_GROUP	SUB_GROUP
Hold-Up	Violence against the person	Violence - Other
Intimidation and molestation	Violence against the person	Violence - Other
Left wife/family in want	Violence against the person	Violence - Other
Procure Illegal Abortion/Miscarriage / Supply of poisonous substance	Violence against the person	Violence - Other
Threats and private violence	Violence against the person	Violence - Other
Accomplice in attempted homicide	Violence against the person	Violence - Person
Accomplice in tentative grievous bodily harm	Violence against the person	Violence - Person
Accomplice in wilful homicide	Violence against the person	Violence - Person
Attempted bodily harm	Violence against the person	Violence - Person
Attempted Murder	Violence against the person	Violence - Person
Causing death by dangerous driving	Violence against the person	Violence - Person
Domestic Violence	Violence against the person	Violence - Person
Malicious Wounding or Inflicting Grievous Bodily Harm (S20)	Violence against the person	Violence - Person
Serious and Slight Wounding	Violence against the person	Violence - Person
Serious Wounding	Violence against the person	Violence - Person
Slight wounding	Violence against the person	Violence - Person
Violence Against the Person	Violence against the person	Violence - Person
Wounding or Causing Grievous Bodily Harm with Intent (S18)	Violence against the person	Violence - Person
Against morals/honour - Family	Violence against the person	Violence - Sexual
Aggravated indecent assault	Violence against the person	Violence - Sexual
Attempted gross indecency with a child	Violence against the person	Violence - Sexual
Attempted sexual offence	Violence against the person	Violence - Sexual
Bigamy/Adultery	Violence against the person	Violence - Sexual
Buggery	Violence against the person	Violence - Sexual
Gross indecency with a child	Violence against the person	Violence - Sexual
Indecent Assault on Female	Violence against the person	Violence - Sexual
Indecent Exposure	Violence against the person	Violence - Sexual
Procuration	Violence against the person	Violence - Sexual
Prostitution	Violence against the person	Violence - Sexual
Rape – Female	Violence against the person	Violence - Sexual
Soliciting or importuning by a man	Violence against the person	Violence - Sexual
Unlawful sexual intercourse with girl under 13	Violence against the person	Violence - Sexual
Unlawful sexual intercourse with girl under 16/18	Violence against the person	Violence - Sexual

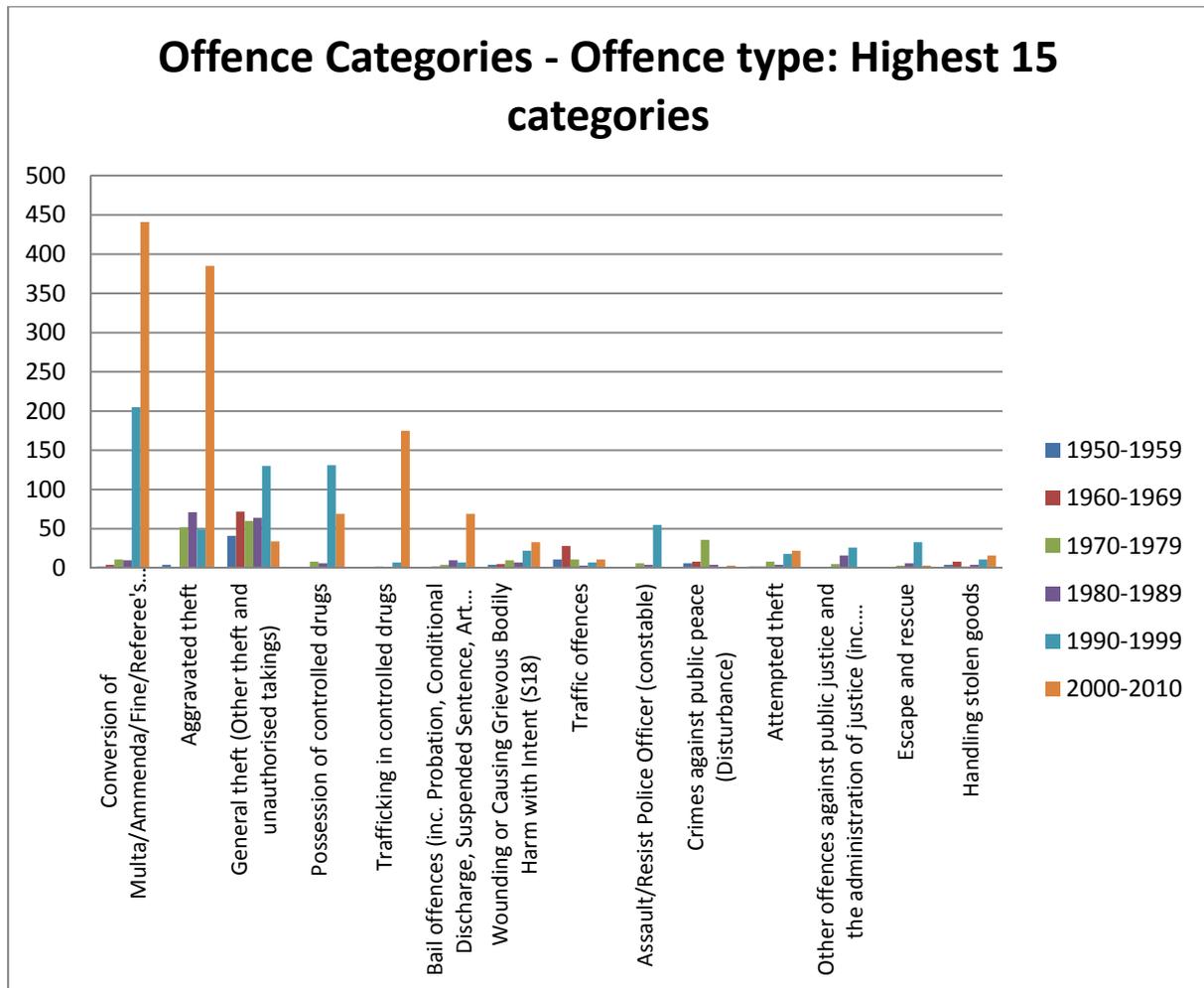


Figure 1: Highest 15 categories of offence types by decade

Table 1: Relationship vs Offences Main Category – All Offences

% within V5ii Offence Main Group Offence										
	Attempted	Burglary	Criminal damage	Drugs	Fraud and forgery	Other	Robbery	Theft	Violence against the person	Total
Horizontal: siblings: brothers	50.0%	16.7%	13.3%	19.9%	14.0%	17.5%	18.0%	23.2%	19.9%	19.2%
Vertical: parental: father – son		16.7%	13.3%	9.4%	8.0%	10.9%	6.3%	8.2%	8.3%	8.9%
Horizontal: cousins			6.7%	8.3%	10.0%	3.4%	4.6%	4.3%	5.2%	5.3%
Horizontal: brother-brother-brother			3.3%	3.6%	6.0%	4.6%	1.3%	6.3%	4.6%	4.1%
Vertical: uncle – nephew				5.1%	2.0%	4.3%	2.9%	5.3%	3.1%	3.9%
Vertical-Horizontal: 5 families linked				1.1%		3.2%	1.7%	2.9%	5.2%	2.7%
Vertical-Horizontal: father-son-father's brother		8.3%	3.3%	2.5%	2.0%	2.0%	0.8%	2.4%	3.7%	2.4%
Horizontal: siblings-cousin				0.7%	8.0%	1.1%	4.2%	1.4%	2.4%	2.1%
Horizontal: siblings: brother - sister			3.3%	2.9%	4.0%	2.6%	2.5%	0.5%	0.9%	2.0%
Vertical-Horizontal: father and sons		8.3%	3.3%	1.8%	2.0%	2.3%	1.3%		2.4%	1.8%
Horizontal: 4 brothers				1.1%		2.0%	2.5%	1.0%	1.2%	1.5%
Horizontal: spouses		8.3%		0.4%		1.1%	1.3%	1.0%	2.1%	1.2%
Vertical-Horizontal: father-sons				2.2%			1.3%	2.9%	0.9%	1.2%
Vertical-Horizontal: father-3 sons-offspring of one of sons (3G) + father's brother+ cousins of third generation+in-laws			3.3%	0.4%	2.0%	1.4%	0.8%	1.0%	1.2%	1.1%
Vertical-Horizontal: father-sons-cousin				0.7%	2.0%	1.1%	0.4%	1.0%	1.5%	1.0%
Vertical: parental: mother – son	50.0%			0.7%	2.0%	1.1%	0.8%	0.5%	0.9%	0.9%
Vertical-Horizontal: father & 7 offspring (2G) + 3 step-children two of whom are siblings (2 sep-sons and 1 step-daughte		8.3%	3.3%	0.4%		0.9%	1.7%	1.4%		0.9%
Vertical-Horizontal: father-sons (2G)+maternal and paternal cousins of sons (three of which are siblings)+ 3 step sons (1.1%		1.1%	1.3%	1.0%	0.3%	0.9%
Horizontal: brother-brother-sister				1.1%		1.1%	0.8%	1.4%		0.8%
Vertical-Horizontal: 3 siblings + their uncle & his son (2G)+ 2 cousins who are siblings & son of one (2G) and in-law of				0.7%		0.9%	0.8%	1.9%	0.3%	0.8%
Vertical-Horizontal: brothers and nephew				1.1%		1.1%	1.7%		0.3%	0.8%
Horizontal: siblings-cousins				2.5%		0.9%	0.4%			0.7%
Vertical-Horizontal: father-son, father's brothers				1.1%		1.4%	0.4%	0.5%	0.3%	0.7%

% within V5ii Offence Main Group Offence										
	Attempted	Burglary	Criminal damage	Drugs	Fraud and forgery	Other	Robbery	Theft	Violence against the person	Total
Vertical-Horizontal: father-son-father's brothers				1.1%		0.3%	0.8%	1.0%	0.9%	0.7%
Vertical: parental: father – daughter				0.4%		1.4%	0.4%		0.9%	0.7%
Vertical-Horizontal: 4G: father-son-sons-sons		8.3%		0.4%		0.6%	0.8%		1.2%	0.7%
Vertical-Horizontal: parents and offspring				1.4%		0.9%	0.4%	1.0%		0.7%
Vertical-Horizontal: spouses & daughter & stepson (2G)-inlaws (2G - 3 siblings of spouse & son + step son of one of them				0.7%		0.3%	0.8%	1.0%	0.9%	0.7%
Horizontal: in-laws				0.7%	2.0%	0.6%		1.0%	0.6%	0.6%
Horizontal: siblings (3) + both spouses of female sibling + in-laws of one of the siblings (5 siblings and cousins of sp				0.4%		1.1%	1.3%		0.3%	0.6%
Horizontal-Vertical: siblings-nephew				1.1%	2.0%	0.3%	0.8%	0.5%	0.3%	0.6%
Vertical: spouses-offspring					2.0%	0.3%	1.3%	1.0%	0.6%	0.6%
Vertical-Horizontal: 3G parental (father-sons & stepson-offspring) - uncle & cousins (2G- father-sons)			3.3%			0.9%	0.8%	0.5%	0.6%	0.6%
Horizontal: spouses-siblings of both spouses				0.4%		0.3%	1.7%	0.5%	0.6%	0.6%
Horizontal: spouses and in-law				0.4%	2.0%	0.6%	0.4%	1.4%		0.5%
Vertical-Horizontal: 3G father-daughter-daughter & in-laws (father-sons)						1.1%	0.8%	1.0%		0.5%
Vertical-Horizontal: 3G father-offspring-son & son in-law (spouse of daughter in crime and father of the third generatio				0.4%		0.6%	0.8%	0.5%	0.6%	0.5%
Vertical-Horizontal: cousins-sibling & half-brother-uncle (2G parental father-sons)				0.4%		0.3%	1.3%	1.4%		0.5%
Vertical-Horizontal: parental (mother-son-son) G3 (siblings)				1.1%	2.0%	0.9%			0.3%	0.5%
Horizontal-Vertical: uncle-nephews				0.4%		0.6%	0.8%	0.5%	0.3%	0.5%
Relatives			3.3%	0.7%		0.3%	0.8%		0.3%	0.5%
Vertical: Parent-sons				0.7%		0.6%		1.0%	0.3%	0.5%
Vertical-Horizontal: 2G 4 siblings and sons of two of them						0.9%	0.4%		0.9%	0.5%
Vertical-Horizontal: 3G mother-				0.7%		0.3%	1.3%		0.3%	0.5%

% within V5ii Offence Main Group Offence										
	Attempted	Burglary	Criminal damage	Drugs	Fraud and forgery	Other	Robbery	Theft	Violence against the person	Total
daughter&partner-sons-in-law										
Vertical-Horizontal: father-sons-father's brothers-cousins						0.3%	1.3%	1.0%	0.3%	0.5%
Vertical-Horizontal: father-sons-father's siblings			3.3%		2.0%	0.9%		0.5%	0.3%	0.5%
Vertical-Horizontal: father-sons-stepsons						0.3%	0.8%	1.0%	0.6%	0.5%
Vertical-Horizontal: father-sons-stepsons-grandson				1.4%			0.4%		0.6%	0.5%
Vertical-Horizontal: siblings, cousins, niece						0.6%	1.3%		0.6%	0.5%
Vertical-Horizontal: spouses-son-in-laws (siblings and father son)-nephews				1.4%				1.0%	0.3%	0.5%
Vertical-Horizontal: spouses-sons-stepsons-sibling				0.7%		0.6%	0.8%		0.3%	0.5%
Horizontal: 6 brothers						0.9%	0.8%	0.5%		0.4%
Vertical-Horizontal: father-son-siblings				1.1%		0.3%		1.0%		0.4%
Vertical-Horizontal: mother-sons-cousins (siblings)				0.7%		0.6%	0.4%		0.3%	0.4%
Vertical-Horizontal: mother-sons-mother's sister				0.4%		0.3%	0.4%	0.5%	0.6%	0.4%
Vertical-Horizontal: parents-son-in-law		8.3%					1.3%		0.6%	0.4%
Vertical-Horizontal: siblings-uncles-cousins (father-son)						0.3%	0.4%	1.0%	0.6%	0.4%
Horizontal: siblings and in-law				0.4%			1.3%		0.3%	0.3%
Horizontal: spouses-siblings-cousin		8.3%	3.3%	0.7%		0.3%				0.3%
Horizontal-Vertical: uncle-nephew-cousin					4.0%	0.3%	0.8%			0.3%
Horizontal-Vertical: uncle-nephew-in-law				0.4%		0.3%	0.8%		0.3%	0.3%
Vertical-Horizontal: 3 siblings-sons of two of them						0.6%	0.8%		0.3%	0.3%
Vertical-Horizontal: brothers-halfbrother-cousins-uncle						0.3%			1.2%	0.3%
Vertical-Horizontal: father-daughter- in laws (siblings)				0.4%			1.7%			0.3%
Vertical-Horizontal: father-offspring-sons							0.8%	0.5%	0.6%	0.3%
Vertical-Horizontal: father-sons-son-in-law-cousins						0.3%		1.4%	0.3%	0.3%
Vertical-Horizontal: mother and sons				0.7%		0.3%	0.4%	0.5%		0.3%

% within V5ii Offence Main Group Offence										
	Attempted	Burglary	Criminal damage	Drugs	Fraud and forgery	Other	Robbery	Theft	Violence against the person	Total
Vertical-Horizontal: siblings-nephews-in-law						0.6%		1.4%		0.3%
Vertical-Horizontal: spouses-grandsons-in-laws-cousin				0.7%				1.0%	0.3%	0.3%
Vertical-Horizontal: spouses-son-siblings of both spouses				1.1%		0.3%			0.3%	0.3%
Vertical-Horizontal: spouses-son-stepson-in-law- cousin-nephews			6.7%			0.3%		0.5%	0.3%	0.3%
Vertical-Horizontal: uncle-nephews						0.6%	0.4%		0.6%	0.3%
Horizontal-Vertical: siblings-father-son-cousin						0.3%	0.4%		0.9%	0.3%
Vertical-Horizontal: brothers, sister's spouse, other sister and son, step brother and in-law				0.4%	4.0%	0.3%	0.4%			0.3%
Horizontal: cousins and in-law				0.4%		0.6%	0.4%			0.3%
Horizontal: spouses-in-laws (brothers of spouse) -cousin of spouse				0.4%	2.0%	0.3%			0.3%	0.3%
Vertical: parental: grandfather - grandson					4.0%	0.3%			0.3%	0.3%
Vertical-Horizontal: 3 siblings-in-laws (brother in law & nephew)						0.9%	0.4%			0.3%
Vertical-Horizontal: father-offspring-cousin			3.3%			0.3%		0.5%	0.3%	0.3%
Vertical-Horizontal: father-son (2G)+ father's brother + 6 cousins (2 of which are siblings)+ in-law (nephew)				0.4%					0.9%	0.3%
Vertical-Horizontal: father-son (fathers and sons are cousins)						0.6%	0.4%		0.3%	0.3%
Vertical-Horizontal: father-son-cousins			3.3%			0.3%	0.4%		0.3%	0.3%
Vertical-Horizontal: father-son-father's brother-in-law (nephew)				0.4%		0.3%			0.6%	0.3%
Vertical-Horizontal: father-son-father's siblings						0.9%		0.5%		0.3%
Vertical-Horizontal: father-son-grandchildren				0.4%		0.3%	0.4%		0.3%	0.3%
Vertical-Horizontal: father-son-nephew-in-laws (father-son)-nephews						0.3%	0.4%		0.6%	0.3%
Vertical-Horizontal: father-son-nephew-relative					2.0%		0.8%		0.3%	0.3%
Vertical-Horizontal: father-sons, father's brother				0.7%					0.6%	0.3%
Vertical-Horizontal: father-sons-grandson						0.3%	0.4%	1.0%		0.3%

% within V5ii Offence Main Group Offence										
	Attempted	Burglary	Criminal damage	Drugs	Fraud and forgery	Other	Robbery	Theft	Violence against the person	Total
Vertical-Horizontal: father-sons-grandsons			3.3%						0.9%	0.3%
Vertical-Horizontal: mother-offspring				1.1%				0.5%		0.3%
Vertical-Horizontal: parental (father-son-daughter) father's brother and his spouse				0.7%	4.0%					0.3%
Vertical-Horizontal: siblings-nephews					2.0%			0.5%	0.6%	0.3%
Vertical-Horizontal: spouses-daughter-father's brothers						0.3%	0.8%		0.3%	0.3%
Vertical-Horizontal: spouses-sons&stepsons-inlaws (brother of spouse & nephew) - relatives				1.1%		0.3%				0.3%
Vertical-Horizontal: siblings-parents-daughter-in-law				0.4%		0.6%		0.5%		0.3%
cousins-relative				0.4%			0.4%		0.3%	0.2%
cousins-relatives (3 siblings)									0.9%	0.2%
Horizontal: 5-brothers		8.3%				0.3%			0.3%	0.2%
Horizontal: siblings-in-law (spouse of female sibling)							0.4%		0.6%	0.2%
Horizontal: siblings-in-law-cousins								1.0%	0.3%	0.2%
Horizontal-Vertical: siblings and uncle						0.6%	0.4%			0.2%
Relative				0.4%		0.3%	0.4%			0.2%
Vertical-Horizontal: 3G spouses-son-offspring-cousin							0.4%	0.5%	0.3%	0.2%
Vertical-Horizontal: father and son and daughter				0.4%		0.6%				0.2%
Vertical-Horizontal: father-daughter-father's cousin				0.7%		0.3%				0.2%
Vertical-Horizontal: father-daughter-son in-law						0.3%			0.6%	0.2%
Vertical-Horizontal: father-daughter-son-in-law-father's brother				0.7%		0.3%				0.2%
Vertical-Horizontal: father-daughters-spouse of daughter-father's brother									0.9%	0.2%
Vertical-Horizontal: father-son, step father						0.3%	0.4%	0.5%		0.2%
Vertical-Horizontal: father-son-father's cousin					2.0%		0.8%			0.2%
Vertical-Horizontal: father-son-in-law			3.3%					0.5%	0.3%	0.2%
Vertical-Horizontal: father-sons-cousins			3.3%			0.3%			0.3%	0.2%

% within V5ii Offence Main Group Offence										
	Attempted	Burglary	Criminal damage	Drugs	Fraud and forgery	Other	Robbery	Theft	Violence against the person	Total
Vertical-Horizontal: father-spouse-son									0.9%	0.2%
Vertical-Horizontal: parents and daughter						0.9%				0.2%
Vertical-Horizontal: parents and son			6.7%						0.3%	0.2%
Vertical-Horizontal: siblings-in-law-nephew						0.3%	0.8%			0.2%
Vertical-Horizontal: uncle-cousins			3.3%					0.5%	0.3%	0.2%
Vertical-Horizontal: father-son-nephew-relative				0.4%		0.3%				0.1%
Horizontal: brothers and in-law								0.5%	0.3%	0.1%
Horizontal: spouses-in-laws				0.4%			0.4%			0.1%
Vertical: uncle – niece						0.3%		0.5%		0.1%
Vertical-Horizontal: father-son-cousin									0.6%	0.1%
Vertical-Horizontal: father-spouses-son							0.4%	0.5%		0.1%
Vertical-Horizontal: mother-son-son								0.5%	0.3%	0.1%
Vertical-Horizontal: parents-offspring						0.3%	0.4%			0.1%
Horizontal: siblings: sisters					2.0%					0.1%
Vertical-Horizontal: 3 siblings-in-law (spouse of one)-mother-son (son of female sibling)							0.4%			0.1%
Vertical-Horizontal: brothers-nephews				0.4%						0.1%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Appendix 4 Relationship type by family tree size

Table 1: Relationship Type: 2 Node Structures

Relationship Type	Counts	Percentage
H: cousins	47	11.5
H: in-laws	8	2.0
H: siblings: brother – sister	21	5.1
H: siblings: brothers	170	41.6
H: spouses	9	2.2
V: parental: father –daughter	8	2.0
V: parental: father –son	89	21.8
V: parental: grandfather –grandson	3	0.7
V: parental: mother – son	8	2.0
V: uncle – nephew	41	10.0
V: uncle – niece	1	0.2
H: siblings: sisters	1	0.2
U: relative	3	0.7
Grand Total	409	100

Note: H = Horizontal, V = Vertical, U = Undefined (Unknown)

Table 2: Relationship Type: 3 Node Structures

Relationship Type	Counts	Percentage
Horizontal: brother-brother-brother	22	20.8
Horizontal: brother-brother-sister	5	4.7
Horizontal: siblings and in-law	3	2.8
Horizontal: siblings-cousin	9	8.5
Horizontal: cousins	2	1.9
Horizontal: cousins and in-law	1	0.9
Horizontal: spouses and in-law	4	3.8
Horizontal-Vertical: siblings and uncle	1	0.9
Horizontal-Vertical: siblings-nephew	5	4.7
Horizontal-Vertical: uncle-nephew-cousin	2	1.9
Horizontal-Vertical: uncle-nephew-in-law	2	1.9
Horizontal-Vertical: uncle-nephews	2	1.9
Vertical: grandfather-father-son	3	2.8
Vertical-Horizontal: brothers and nephew	4	3.8
Vertical-Horizontal: father and son and daughter	1	0.9
Vertical-Horizontal: father and sons	11	10.4
Vertical-Horizontal: father-daughter-father's cousin	1	0.9
Vertical-Horizontal: father-daughter-son in-law	1	0.9
Vertical-Horizontal: father-son, step father	1	0.9
Vertical-Horizontal: father-son-cousin	1	0.9
Vertical-Horizontal: father-son-father's brother	13	12.3
Vertical-Horizontal: father-son-father's cousin	1	0.9
Vertical-Horizontal: father-son-father's sister	1	0.9
Vertical-Horizontal: father-son-in-law	1	0.9
Vertical-Horizontal: father-spouse-son	1	0.9
Vertical-Horizontal: mother and sons	2	1.9
Vertical-Horizontal: mother-son-son	1	0.9
Vertical-Horizontal: parents and daughter	1	0.9
Vertical-Horizontal: parents and son	1	0.9
Vertical-Horizontal: uncle-cousins	1	0.9
Vertical-Horizontal: uncle-nephews	1	0.9
Undefined: cousins and relative	1	0.9
Grand Total	106	100

Table 3: Relationship Type: 4 Node Structures

Relationship Type	Counts	Percentage
H: 4 brothers	7	14.6
H: 3 brothers - 1 sister	1	2.1
H: brothers-in-law	1	2.1
H: cousins	1	2.1
H: siblings-cousin	4	8.3
H: siblings-cousins	3	6.3
H: siblings-in-law	1	2.1
H: spouses-in-laws	1	2.1
V-H: brothers-nephews	1	2.1
V-H: father-daughter-son-in-law-father's brother	1	2.1
V-H: father-sons	3	6.3
V-H: father-offspring-cousin	1	2.1
V-H: father-son (fathers and sons are cousins)	1	2.1
V-H: father-son, father's brothers	3	6.3
V-H: father-son-father's brother-in-law (nephew)	1	2.1
V-H: father-son-father's siblings	1	2.1
V-H: father-son-nephew-relative	1	2.1
V-H: father-sons, father's brother	1	2.1
V-H: father-sons-cousin	2	4.2
V-H: father-spouses-son	1	2.1
V-H: mother-offspring	1	2.1
V-H: parents and offspring	2	4.2
V-H: parents-daughter-in-law	1	2.1
V-H: parents-offspring	1	2.1
V-H: parents-son-in-law	2	4.2
V-H: siblings-nephews	1	2.1
V-H: uncle-nephews	1	2.1
U: cousins-relative	1	2.1
U: relatives	1	2.1
Grand Total	47	100

Table 4: Relationship Type: 5 Node Structures

Relationship Type	Counts	Percentage
H: 5-brothers	1	3.7
H: siblings-in-law (spouse of female sibling)	1	3.7
H: spouses-in-laws (brothers of spouse) -cousin of spouse	1	3.7
H: spouses-siblings-cousin	1	3.7
V: spouses-offspring	2	7.4
V-H: 3 siblings-in-law (spouse of one)-mother-son (son of female sibling)	1	3.7
V-H: 3 siblings-in-laws (brother in law & nephew)	1	3.7
V-H: 3 siblings-sons of two of them	1	3.7
V-H: father-daughter- in laws (siblings)	1	3.7
V-H: father-daughters-spouse of daughter-father's brother	1	3.7
V-H: father-offspring-sons	1	3.7
V-H: father-son-cousins	1	3.7
V-H: father-son-father's brothers	1	3.7
V-H: father-sons	1	3.7
V-H: father-sons-cousin	2	7.4
V-H: father-sons-cousins	1	3.7
V-H: father-sons-grandson	1	3.7
V-H: father-sons-grandsons	1	3.7
V-H: father-son-siblings	1	3.7
V-H: mother-sons-cousins (siblings)	1	3.7
V-H: parental (father-son-daughter) father's brother and his spouse	1	3.7
V-H: parental (mother-son-son) G3 (siblings)	1	3.7
V-H: siblings-in-law-nephew	1	3.7
V-H: spouses-daughter-father's brothers	1	3.7
U: cousins-relatives (3 siblings)	1	3.7
Grand Total	27	100.0

Table 5: Relationship Type: 6-9 Node Structures

Nodes	Relationship Type
6	Vertical-H: spouses-son-siblings of both spouses
6	Vertical-H: mother-sons-mother's sister
6	Vertical-H: father-sons-son-in-law-cousins
6	H: 6 brothers
6	Vertical-H: father-son-grandchildren
6	Vertical-H: father-sons-stepsons-grandson
6	Vertical-H: siblings-nephews-in-law
6	H: siblings-in-law-cousins
7	Vertical-H: father-sons-father's siblings
7	Vertical-H: spouses-sons-stepsons-sibling
7	Vertical-H: spouses-son-stepson-in-law- cousin-nephews
7	Vertical-H: father-sons-stepsons
7	Vertical-H: 3G spouses-son-offspring-cousin
7	Vertical-H: father-son-father's brothers
7	Vertical-H: spouses-grandsons-in-laws-cousin
7	Vertical-H: 4G: father-son-sons-sons
7	Vertical-H: spouses-son-in-laws (siblings and father son)-nephews
7	Vertical-H: father-son-nephew-in-laws (father-son)-nephews
8	Vertical-H: siblings-uncles-cousins (father-son)
8	Vertical-H: 3G mother-daughter & partner-sons-in-law
8	Vertical-H: brothers-half-brother-cousins-uncle
8	Vertical-H: 2G 4 siblings and sons of two of them
8	Vertical-H: father-sons-father's brothers-cousins
8	Vertical-H: 3G father-daughter-daughter & in-laws (father-sons)
9	Vertical-H: 3G father-offspring-son & son in-law (spouse of daughter in crime and father of the third generation)
9	Vertical-H: cousins-sibling & half-brother-uncle (2G parental father-sons)
9	Vertical-H: 3G parental (father-sons & stepson-offspring) - uncle & cousins (2G-father-sons)

Table 6: Relationship Type: 10+ Node Structures

Relationship Type	Counts
Horizontal: siblings (3) + both spouses of female sibling + in-laws of one of the siblings (5 siblings and cousins of spouse)	1
Vertical-Horizontal: 3 siblings + their uncle & his son (2G)+ 2 cousins who are siblings & son of one (2G) and in-law of same cousin+ spouse of cousin and his 2 siblings & son of one (2G)	1
Vertical-Horizontal: 5 families linked A + B + C + D + E; A (5G parental:22 persons) grandfather (skipped a generation)+ 1 & 2 siblings & spouse of one + father & son & daughter in-law & offspring+ cousins + in-laws + cousins as siblings+ spouse of one of the cousins (of the third generation-E married to A and also to C); B family as in-law of A (3G: 14 people) father + 4 offspring+ sons of one of the female siblings + children of other siblings not in crime (B family is linked to D as one of the siblings of 2nd generation is married to D; C (2G: 6 persons) father & 4 sons+ aunt+ in-law (E's brother); E (2G:3 persons) father, son and daughter who is married to C, D (3G: 9 persons) father & offspring &offspring (5, three of which there mother is a D but not in crime)	1
Vertical-Horizontal: father & 7 offspring (2G) + 3 step-children two of whom are siblings (2 step-sons and 1 step-daughter) + cousins of sons	1
Vertical-Horizontal: father-3 sons-offspring of one of sons (3G) + father's brother+ cousins of third generation + in-laws of third generation (brother & brother in law) + in-laws of first generation (brother+ sister+ 5 nephews three of whom are siblings)	1
Vertical-Horizontal: father-son (2G)+ father's brother + 6 cousins (2 of which are siblings)+ in-law (nephew)	1
Vertical-Horizontal: father-sons (2G)+maternal and paternal cousins of sons (three of which are siblings)+ 3 step sons (offspring of spouse)	1
Vertical-Horizontal: spouses & daughter & stepson (2G)-in-laws (2G - 3 siblings of spouse & son + step son of one of them; son & spouse of female sibling not in crime)	1
Vertical-Horizontal: spouses-sons &stepsons-in-laws (brother of spouse & nephew) – relatives	1
Grand Total	9

Appendix 5 League Table of Residential presence of Intergenerational, Non-Family and the PopGen cohorts

Table 1: League Table of Residential presence of Intergenerational, Non-Family and the PopGen cohorts

NUTS5_ID	NUTS5_DESP	Population	Intergenerational Offences	Non-Family	PopGen	Intergenerational RISC	Non-Family RISC	PopGen RISC
1	VALLETTA	6295	36	32	68	5.6 x National	2.7 x National	3.7 x National
5	BORMLA	5569	23	29	52	4.0 x National	2.8 x National	3.2 x National
57	SANTA LUCIJA	3136	12	12	24	3.7 x National	2.1 x National	2.7 x National
54	SAN LAWRENZ	600	2	0	2	3.2 x National	0.0 x National	1.2 x National
4	ISLA	3010	9	17	26	2.9 x National	3.0 x National	3.0 x National
18	FLORIANA	2158	6	9	15	2.7 x National	2.2 x National	2.4 x National
29	KALKARA	2863	8	6	14	2.7 x National	1.1 x National	1.7 x National
31	KIRKOP	2229	6	3	9	2.6 x National	0.7 x National	1.4 x National
3	BIRGU	2648	5	9	14	1.8 x National	1.8 x National	1.8 x National
47	PIETA	3835	7	9	16	1.8 x National	1.3 x National	1.4 x National
26	GHAXAQ	4510	8	10	18	1.7 x National	1.2 x National	1.4 x National
8	ZABBAR	15032	26	27	53	1.7 x National	1.0 x National	1.2 x National
55	SAN PAWL IL-BAHAR	14993	24	42	66	1.6 x National	1.5 x National	1.5 x National
40	MQABBA	3102	5	7	12	1.6 x National	1.2 x National	1.3 x National
6	QORMI	16760	28	34	62	1.6 x National	1.1 x National	1.3 x National
21	GZIRA	7335	11	30	41	1.5 x National	2.2 x National	1.9 x National
34	MARSA	6342	10	19	29	1.5 x National	1.6 x National	1.6 x National
46	PEMBROKE	3038	4	2	6	1.3 x National	0.4 x National	0.7 x National
33	LUQA	5786	7	14	21	1.2 x National	1.3 x National	1.3 x National
7	ZEBBUG (Malta)	11622	14	23	37	1.2 x National	1.1 x National	1.1 x National
45	PAOLA	8723	10	23	33	1.1 x National	1.4 x National	1.3 x National
58	SANTA VENERA	6163	7	13	20	1.1 x National	1.1 x National	1.1 x National
59	SLIEMA	13985	16	24	40	1.1 x National	0.9 x National	1.0 x National
62	TARXIEN	7751	9	13	22	1.1 x National	0.9 x National	1.0 x National
27	HAMRUN	9373	9	19	28	0.9 x National	1.1 x National	1.0 x National
14	BIRKIRKARA	22613	22	35	57	0.9 x National	0.8 x National	0.9 x National
41	MSIDA	8157	7	23	30	0.8 x National	1.5 x National	1.3 x National
23	GHARB	1167	1	3	4	0.8 x National	1.4 x National	1.2 x National
10	ZEJTUN	11358	9	27	36	0.8 x National	1.3 x National	1.1 x National

NUTS5_ID	NUTS5_DESP	Population
17	FGURA	11609
24	GHARGHUR	2469
13	BALZAN	3983
52	SAN GILJAN	8545
20	GUDJA	2892
53	SAN GWANN	13200
28	IKLIN	3262
15	BIRZEBBUGIA	9304
30	KERCEM	1673
35	MARSASCALA	10110
44	NAXXAR	12498
61	TA' XBIEX	1900
60	SWIEQI	8854
56	SANNAT	1796
39	MOSTA	19300
68	MTARFA	2475
9	SIGGIEWI	8116
37	MELLIEHA	8227
67	ZURRIEQ	10090
50	RABAT (Malta)	11403
36	MARSAXLOKK	3296
12	ATTARD	10682
64	XEWKIJA	3147
63	XAGHRA	4041
11	RABAT (Victoria)	6248
2	MDINA	253
65	XGHAJRA	1294
32	LIJA	2917
43	NADUR	4220
66	ZEBBUG (Ghawdex)	1851
48	QALA	1640
19	FONTANA	848
42	MUNXAR	1106
51	SAFI	2030

Intergenerational Offences	Non-Family	PopGen
9	20	29
2	4	6
3	8	11
6	16	22
2	2	4
8	22	30
2	5	7
6	12	18
1	0	1
5	17	22
6	18	24
1	3	4
5	4	9
1	0	1
8	25	33
1	3	4
3	9	12
3	8	11
4	9	13
4	20	24
1	5	6
3	7	10
1	0	1
1	3	4
1	3	4
0	1	1
0	3	3
0	5	5
0	7	7
0	3	3
0	2	2
0	1	1
0	1	1
0	2	2

Intergenerational RISC
0.8 x National
0.8 x National
0.7 x National
0.7 x National
0.7 x National
0.6 x National
0.5 x National
0.4 x National
0.3 x National
0.2 x National
0.2 x National
0.0 x National

Non-Family RISC
0.9 x National
0.9 x National
1.1 x National
1.0 x National
0.4 x National
0.9 x National
0.8 x National
0.7 x National
0.0 x National
0.9 x National
0.8 x National
0.8 x National
0.2 x National
0.0 x National
0.7 x National
0.7 x National
0.6 x National
0.5 x National
0.5 x National
0.5 x National
0.9 x National
0.8 x National
0.4 x National
0.0 x National
0.4 x National
0.3 x National
2.1 x National
1.2 x National
0.9 x National
0.9 x National
0.9 x National
0.7 x National
0.6 x National
0.5 x National
0.5 x National

PopGen RISC
0.9 x National
0.8 x National
1.0 x National
0.9 x National
0.5 x National
0.8 x National
0.7 x National
0.7 x National
0.2 x National
0.8 x National
0.7 x National
0.7 x National
0.4 x National
0.2 x National
0.6 x National
0.6 x National
0.5 x National
0.5 x National
0.4 x National
0.7 x National
0.6 x National
0.3 x National
0.3 x National
0.1 x National
0.3 x National
0.2 x National
1.4 x National
0.8 x National
0.6 x National
0.6 x National
0.6 x National
0.4 x National
0.4 x National
0.3 x National
0.3 x National

NUTS5_ID	NUTS5_DESP	Population
49	QRENDI	2581
38	MGARR	3114
16	DINGLI	3408
22	GHAJNSIELEM	2670
25	GHASRI	412

Intergenerational Offences	Non-Family	PopGen
0	2	2
0	2	2
0	1	1
0	1	1
0	0	0

Intergenerational RISC
0.0 x National

Non-Family RISC
0.4 x National
0.3 x National
0.2 x National
0.2 x National
0.0 x National

PopGen RISC
0.3 x National
0.2 x National
0.1 x National
0.1 x National
0.0 x National

Table Key	
Higher than 5x National	
Higher than National	
National	
Lower than National	
Absence of Incidence	

Appendix 6 Poverty and offender hotspots

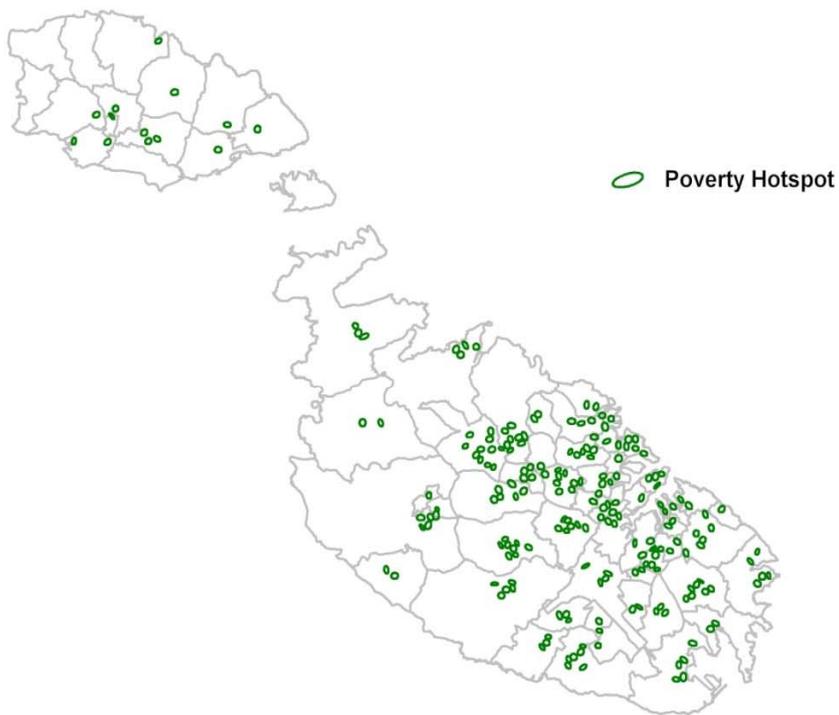


Figure 1: Map of Poverty Hotspots (NNH1 – Nearest Neighbour Hierarchical Clustering) (Formosa, 2007)

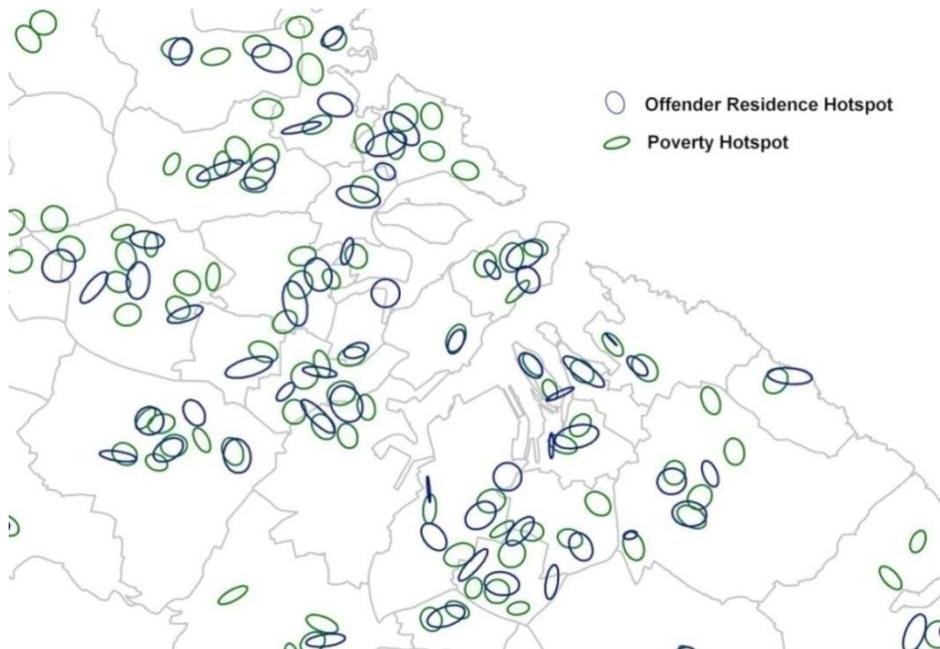


Figure 2: Map of Offender Residence hotspots and Poverty hotspots (Formosa, 2007)