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**The Process of Victimisation: Investigating Risk,  
Reporting and Service Use**

**Stephanie Fohring**

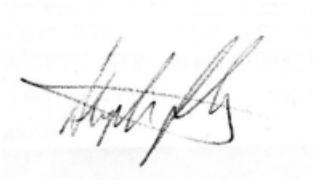
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**2012**

## DECLARATION

I declare that this thesis is of my own composition, based on my own work, with acknowledgement of other sources, and has not been submitted for any other degree or professional qualification.



Stephanie Fohring

May 28, 2012

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## Abstract

Much current research on victimisation focuses primarily on demographic risk factors associated with those who have experienced crime and how these factors affect the likelihood of a person breaching the so called 'first hurdle'. That is, the probability of moving from a state of non-victim to one of victim. In contrast, this thesis will argue that in order to achieve a more comprehensive understanding of victimisation, it is not only desirable but necessary to move beyond the study of the causes of criminal victimisation and examine the consequences for victims as well as the criminal justice system as a whole. Thus, it seeks to explain the experience of victimisation not just as an isolated incident, but as a process consisting of a number of steps or stages of progression through the criminal justice system, each one building on the last. As such, in addition to considering risk factors, this thesis also examines the decision to report a crime to the police, the use of victim services, as well as the perceived satisfaction with services received. In so doing it explores not only the causes and consequences of crime, but the longer term impact of criminal victimisation.

The results presented here are based on the secondary analysis of data from the 2008/9 Scottish Crime and Justice Survey complimented by a data set acquired through in-depth interviews with victims of crime from the Edinburgh Local Authority. Interview data is used to provide a greater depth of meaning to the patterns which emerged from the survey data; lending insight into the psychological processes driving victim decision making and behaviour. This thesis thus provides an example of how a combination of techniques including multi-level modelling and interview analysis, provide a clearer understanding of how victims experience crime. Findings suggest that factors associated with each step of the process are related and may represent a more general underlying pattern of victimisation. It is also argued that by employing multi-level analysis, the thesis provides a more accurate explanation of how respondent's experiences may differ according to the context in which they live. Finally, the analysis highlights the ongoing importance of emotion in victim decision making and the severity of long term impact.

The analysis presented offers new insights into how we understand victimisation as an ongoing experience, as well as demonstrating the necessity of the analytic techniques employed. It is however somewhat confined by the coverage of survey questions and the limited generalizability of the data collected in interviews due to the small sample size. These concerns will be discussed, along with recommendations for victim policy and future research.

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### List of Abbreviations

ACF	Auto-Correlation Function
AIC	Akaike Information Criterion
BCS	British Crime Survey
CHS	Children's Hearing System
DIC	Deviation Information Criterion
ESYTC	Edinburgh Study of Youth Transitions and Crime
GP	General Practitioner
ICVS	International Crime and Victimization Survey
IG	Intermediate Geography
IGLS	Iterative Generalised Least Squares
LAA	Local Authority Area
MCMC	Markov-Chain Monte Carlo
MQL	Marginalised Quasi-Likelihood
NCS	National Crime Survey
PFA	Police Force Area
PQL	Penalised Quasi-Likelihood
SCJS	Scottish Crime and Justice Survey
SCVS	Scottish Crime and Victimization Survey
SIMD	Scottish Index of Multiple Deprivation
UN	United Nations
UK	United Kingdom
VPC	Variance Partitioning Coefficient
VSS	Victim Support Scotland

Fare forward voyager, observe, notice the wreckage surrounding you.  
Can you feel under your wings the wind that inexorably pushes you into  
the future? Can you recall how many brief joys, how many deep sorrows,  
how much melancholy, how many empty words and how many eloquent silences have  
crossed your life? And how many wounds? How many deaths?  
Many wrecks remain!  
Can you see?  
Spread your wings and go, voyager! You can no longer return.  
You cannot avoid the great storm that blows from paradise.  
Me, you, us cannot retreat, nor heal the wounds nor bring back the dead.  
So, fare forward, voyager! Progress, recall and dream, but do not delude  
yourself – such is History. Such is this story too.

- Jose Barrias



## Chapter 1: Introduction

There is an oft quoted phrase amongst criminologists, usually attributed to Winston Churchill, claiming that one 'can measure the civilization of a society by the way in which it treats its prisoners.' Although penal policy and the conditions endured by prisoners are no doubt of humanitarian concern and justifiably the basis for a fascinating body of research; this quote reflects the prevailing trend in criminology and other social sciences generally, of an enduring focus on the criminal when in fact, what may be a more appropriate measure of civilization in society, is how well it treats its victims.

This thesis represents one small step towards reversing this offender oriented trend. It seeks to explore the causes, consequences and impact of criminal victimisation by means of a secondary analysis of data from the Scottish Crime and Justice Survey, consisting of a series of multi-level models. It also includes the analysis of complimentary data acquired through in-depth interviews with victims of crime from the City of Edinburgh. The causes of criminal victimisation are explored via modelling of both individual and community based factors theoretically associated with the risk of becoming a victim. The consequences of victimisation, for the victim as well as the system, are explored through an analysis of reporting behaviour as well as service use and helpfulness. The impact of crime is taken into account in these models, but is more fully examined in the interview process.

This research represents an attempt to understand the experience of what it is like to be a victim, not just at the time of the incident, or immediately thereafter, but throughout what is often described as the daunting process of navigating the criminal justice system. This is in contrast to the vast majority of research concerned with victims of crime which instead focuses on predicting risk using demographic variables. Although there are of course bodies of work exploring reporting crime to the police, and services for victims respectively, little exists in the way of linking the initial experience of victimisation to the experiences of reporting and service use. This, despite the fact that a small number of studies (see Freedy et al., 1994; Davis et al., 1999) have suggested there may be an underlying pattern, or at least some similarities across individuals and/or communities where, for instance, crimes are not reported and services are not used. Thus, the overarching goal of this research is to

build on the extant literature surrounding victimisation, but to do so in an all encompassing and holistic manner, rather than choosing to focus on any one singular experience in the process of victimisation.

To begin, in order to develop a contextual foundation for the present study, a brief introduction to victimological research is provided below; followed by an overview of the development of victim policy in Scotland. From here an outline of the main argument and some preliminary aims of the thesis are provided, accompanied by an overview of both the quantitative and qualitative methods employed. This will in turn be followed by an outline of the remainder of the work.

### 1.1 Introduction to Victimological Research

For centuries scientific investigation of crime and its participants has focused primarily on offenders and their social environments, with little or no attention paid to those who were seen as the hapless and unfortunate bystanders of an issue between two concerned parties, the accused and the state. It was not until the early twentieth century that a few academics, predominantly in the fields of sociology and psychology, took notice of this absent figure in the criminal justice system, the victim. The study of victims has continued to grow in popularity, eventually expanding beyond a sub-field of criminology and finally establishing itself as an independent yet interdisciplinary field drawing on theory and research from various social and applied sciences as it has begun to recognise parallels in not only victims of crime but victims of natural disasters, governments and economy. This is demonstrated in the adoption by the World Society of Victimology's definition of the term victim as: 'persons who, individually or collectively, have suffered harm, including physical or mental injury, emotional suffering or economic loss or substantial impairment of their fundamental rights through acts or omissions that are in violation of criminal laws, including those proscribing abuses of power' (cited in Van Dijk, 1997).

Victimology as a fledgling discipline emerged in the 1940's with Von Hentig's 'The Criminal and his Victim' (1948) typically being cited as the pioneering work of the genre. However, the actual coining of the term 'victimology' is credited in the literature to both Mendelshon (1956) and the American psychiatrist Frederick Wertham in his book *The Show of Violence*

(1948) (Fattah, 2000; Van Dijk 1997). These early victimologists, particularly Mendelshon and Wolfgang (1958) expanded on Von Hentig's criticism of the traditional, offender oriented nature of criminology; instead stressing the interaction between victim and offender (Hoyle and Zedner, 2007). These works were however based on creating typologies of victims and were later heavily criticised (see Van Dijk, 1997; Timmer and Norman, 1984) for evolving into victim blaming.

Victimological research took a further massive leap forward with the appearance of large scale victim based surveys, the first of which, the National Crime Survey was carried out by the American Bureau of Justice Statistics in 1972. The first British Crime Survey followed closely in 1982, with independent Scottish and Northern Irish surveys emerging in 1993 and 1994 respectively. Similar large scale surveys are now carried out in over seventy countries worldwide, with the addition of the International Crime and Victimization Survey in 1989 allowing for comparisons to be made across some 48 countries globally (Hoyle and Zedner, 2007). These surveys, as well as numerous small scale community based surveys, like that conducted by Sparks, Genn and Dodds (1977) in London revealed not only the scale of victimisation, but also the now infamous 'dark figure' of crime. Furthermore, these surveys demonstrated how very unhappy, frustrated, and often traumatised victims were as a result of their involvement with the system; which in turn led to an ever expanding body of research into victims needs, the impact of crime, and procedural and restorative justice. In addition, the data collected in these surveys has allowed for empirical testing and expansion of theories surrounding victims, their lifestyles and risk, victim and offender relationships, the victim in the criminal justice system, victims and the media, fear of crime, the cost of crime, and victims as they relate to various social movements.

Although there is now a substantial body of data available, much of the empirical investigations concerning victims of crime are still focused on predicting risk, and primarily from a crime prevention orientation. Numerous theories have sought to determine the causal attributes associated with the so called 'first hurdle', that is, the movement of a person from the state of non-victim to one of victimhood. For example, the debate over the significance of previous and/or multiple victimisation, referred to in the research as event-dependence, and suggested by some (Farrell and Pease, 1998) to be the best predictor of future risk, versus risk heterogeneity, has dominated discourse on victims for a number of

years. The Kirkholt Burglary Prevention Project (see Forrester et al., 1988), which aimed to reduce the high level of residential burglary in a local authority housing estate in Rochdale, is still often cited as a successful demonstration of the effectiveness of tackling repeat victims in the prevention of crime, despite further analysis revealing somewhat mixed and dubious success rates (Hope, 2008). Research into reporting has also seen little advancement since Skogan (1984) first published results from an analysis of the British Crime Survey. And finally, with respect to investigations of the use, availability and effectiveness of victim support services, most recent research has originated in the United States, the results of which may not be generalizable to the United Kingdom due to differences in the structure of victim support networks.

Thus, to reiterate, in victimology, there exists no comprehensive theory of victimisation. There are instead a number of related yet separate areas of investigation. For example, Routine Activity and Lifestyle Theories seek to address risk factors of victimisation, while others look to social psychology to explain influences on reporting behaviour, and still others look to clinical and diagnostic research to explain service use and satisfaction.

This thesis by no means aims to produce such a grand theory, but instead makes a concerted effort to link these components of the victims' experience because, in contrast to what the literature may suggest, they do not exist independently of each other. Neither are they independent from the political world. The results of victim based research have led to a number of policy developments, with varying degrees of success, to be discussed further in the following section. As policy in general is not created in a political vacuum, but is instead more concerned with an evidential basis, so too is the criminal justice system being informed by the re-emergence of the victim; a critical step (see Christie, 1977) in returning conflicts to their rightful owners, the victims.

## 1.2 The Evolution of Victim Policy in Scotland

A number of steps in this direction have been taken throughout the latter half of the 20<sup>th</sup> century which has been witness to a remarkable new trend in the history of the criminal justice system, a slow moving away from an offender centred system to a system which places the rights and needs of victims of crime at its centre. This process is however far

from complete and some (see Strang, 2002) would go so far as to argue that the criminal justice system in its current state has reached the limits of its capacity to provide what victims want. Victim Support's Chief Executive Gillian Guy summed up this sentiment in her comment to the BBC, "the fundamental problem is that however much we try to tweak the system to help victims and witnesses, we are still trying to make it do something it was not designed to do."<sup>1</sup> That being said, what exactly it is that victims want from the system is still a disputed matter, with two rather distinct approaches to victim advocacy being taken on both sides of the Atlantic. The earliest seeds of what has evolved into a worldwide recognition of the plight of victims began in the United States, and was largely modelled after the civil rights movement there, gaining further momentum in the 1970's with the advent of feminist awareness campaigns surrounding domestic and sexual violence. Recognition on a global scale was achieved with the United Nations (UN) 1985 declaration of the basic principles of justice for victims of crime and abuse of power. Though few would argue over the basic right of a victim to services, questions surrounding the procedural rights of victims are still hotly contested, and often concern for the welfare of offenders is still seen as the greatest hurdle to greater participation in the system by victims. Sadly, in the predominant adversarial system, victim rights and offender rights are continually placed in opposition to one another with the end result being progression for neither (see Shapland, 2011).

In contrast to the American rights based victim movement, the European model has taken a less political, more support focused agenda. Here, the victim's movement grew out of small scale, community based support services and has, somewhat more successfully than their American counterparts, managed to avoid over politicization of the issue. For example, Victim Support, which is now in receipt of sizeable government grants, still maintains its policy of refusing to comment on sentencing procedure (Strang, 2002).

A number of key developments in victim policy in the United Kingdom followed the establishment of statutory criminal injuries compensation arrangements in 1964 and the similar yet more recent establishment of the Victim's Fund in 2004, which had the specific

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<sup>1</sup> BBC news: Justice 'must focus on victims' November 5, 2009. Retrieved from <http://news.bbc.co.uk/1/hi/uk/8343313.stm>.

purpose of developing services for victims of sexual offences. Victim Support first appeared on the scene in 1975 following the unification of a large number of small scale, locally based support groups; though it did not receive any government funding until 1987. The UK's first rape crisis centre and women's refuges appeared at roughly the same time, in 1972 and 1976 respectively. However, it wasn't until the 1990's that legislation caught up with the voluntary sector; the Victim's Charter appeared in 1990, with subsequent revisions in 1996. The Criminal Justice Act was passed in 1991, followed by the Crime and Disorder Act in 1998, which included reparation for victims of young offenders, and the Youth Justice and Criminal Evidence Act (1999) further entailed provisions for vulnerable witnesses, which was in turn followed by the Domestic Violence, Crime and Disorder Act of 2004. The following year witnessed the publication of the government Green Paper *Rebuilding Lives: Supporting Victims* which suggested the need for victim support organisations to prioritise practical and emotional help, as well as financial compensation (Davies, 2007). Finally, 2006 saw the ushering in of a Code of Practice for Victims of Crime, which entailed statutory obligations on the Criminal Justice System to provide minimum standards of services to victims, as well as the recruitment of a Commissioner for Victims and Witnesses after the high profile murder of Sarah Payne resulted in a critical report on services by the victim's mother.

Policy regarding victims of crime in Scotland is largely centred on the Scottish Government's Strategy for Victims and the National Standards for Victims of Crime which were launched in January 2001. The Strategy, broadly based on the above mentioned UN declaration, outlines three key policy objectives: the provision of appropriate information (both general and case-specific) to victims; ensuring that emotional and practical support is available to victims; and securing greater participation for victims in the criminal justice process. Specifically, the Strategy aims

*'to ensure that all victims of crime will be able to get support and assistance at all stages of the criminal justice process and thereafter if needed. They should be able to expect a quick response from the police to crimes they report, to be kept informed of developments in their case, to receive extra help if the crime is a very serious one, to be told if there are to be criminal proceedings and to be kept in touch as these progress, to be treated with courtesy and sensitivity*

*if they have to give evidence as a witness, to be offered emotional and practical support throughout, to be able to apply for compensation if they suffer injury and where a serious violent or sexual offence is involved, to be able to receive information about plans for releasing the offender from prison.'*

Two recent progress reports have since been made on the strategy (Scottish Executive, 2003; 2004) outlining key initiatives taken forward since the strategy's inception. These include for example, the creation of the Victim Information and Advice Service (VIA), the expansion of the Witness Service to all 49 Sheriff Courts in Scotland, resolving referral problems arising from the Data Protection Act, refurbished court buildings and reviewing current arrangements for vulnerable witnesses. Although the aims and objectives of this policy are admirable in the sense that they seek to offer ongoing support to victims throughout the process set in motion following a criminal incident, it is in no way binding on the service providers it involves. Further issues arise where, for example, policy objective number one states '*this objective aims to ensure that victims have access to appropriate support without having to seek out this support themselves. Victims should as a result feel supported throughout the processes with which they are involved and indeed afterwards if they so wish.*' What this objective is missing is recognition of the fact that in Scotland, less than half of all crimes are reported to the police, yet Victim Support receive some 90.5% of their referrals from this source, with only 3.3% of service users self-referring (Victim Support, 2009). Furthermore, although initiatives have been put in place to ensure victims remain informed of the progress of their case, lack of information is still a commonly cited grievance among victims (Maguire, 1985; Skogan et al., 1990).

Other advances in Scotland have included the piloting of a nation-wide Victim Statement Scheme, which, after review, led to the scheme being introduced for victims of serious crimes only in September of 2008. The Scottish Crime and Justice Survey (formerly the Scottish Crime and Victimization Survey) which asks a nationally representative sample about their experiences with and perceptions of the criminal justice system, is now carried out at regular intervals, providing valuable data for further research such as that presented here. Victim Support Scotland now receives in excess of four million pounds annually from

Scottish Government, and has provided some type of support to nearly 89,000 victims of crime with the Witness Support providing further assistance to some 81,000 individuals.

In a relatively short period of time victim's rights have come a long way in Scotland and in most Western democracies generally. Even so, victims still find themselves on the outskirts of a complicated and often confusing system where their primary role is still to act as a witness for the prosecution in order to aid the state in achieving its goals of apprehending and punishing offenders. Thus, this work seeks to balance the scales, by placing the victim at centre stage in the hopes that this may lead to a greater understanding of precisely what it is victims want and need, at all stages of the process.

### 1.3 Overview of the Argument

By building on and integrating previous research in a number of areas, including victimisation risk, reporting patterns, service use and helpfulness, this thesis will argue that in order to gain a comprehensive understanding of the nature of victimisation and the impact it has on the lives of those involved, research must move beyond its current focus on the so called 'first hurdle.' This is necessary as, for a victim the initial incident is only the start of a long and difficult journey through the criminal justice system, and through an often unprecedented challenge to the self.

By going beyond the initial incident of victimisation, this thesis aims to identify connections and/or patterns between the stages of the process, thus linking the decision making process of the victim at key points in their progression through the criminal justice system. In so doing, this research will result in a more comprehensive understanding of the longer term impact of crime on victims than currently exists.

This thesis argues that variables related to an individual's original level of risk will also be related to their decision to report a crime once it has happened, in other words, that there will be a pattern of influence throughout the process. Also, that the factors which in turn affect the decision to report will too play a role in a victim's appraisal of their need and subsequent use or non-use of available support services and their consequent judgement of these services as either helpful and adequate or useless and impractical. The process of



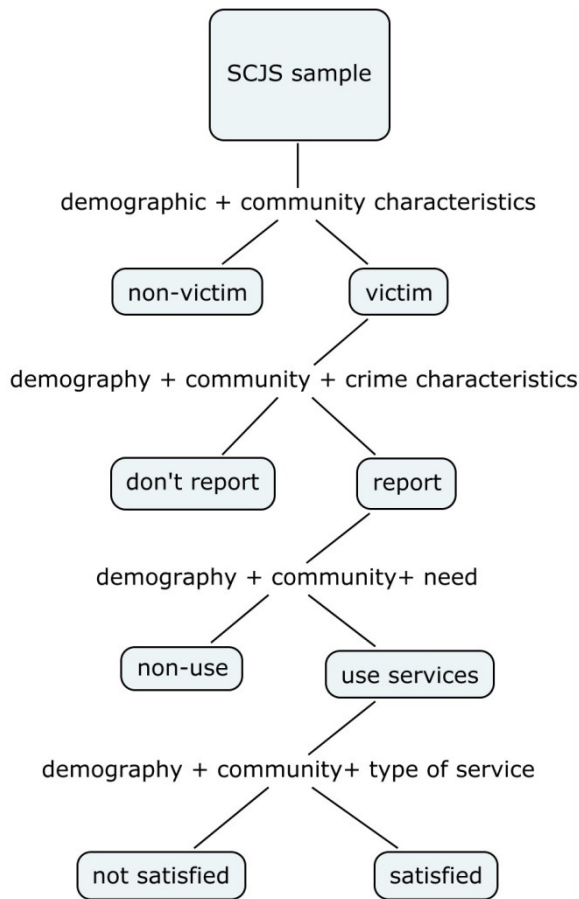
victimisation is a long and complicated affair. It does not end once the incident is over, once the police have been notified, or even when an offender is found guilty and punished. The process of victimisation also includes the process of coping and healing, therefore it is important to highlight the role that emotions and moral judgements play in the aftermath of victimisation. Together these elements represent a complex interaction between individual and society inherent in the nature of crime and victimisation, and apparent in the interlinking of patterns across the process.

#### 1.4 Aims and Objectives

As noted above, the broad agenda of this thesis is to go beyond the 'first hurdle' of victimisation research, and to explore the impact of crime on its victims not just as a single and isolated incident, but as a process which carries the victim through a number of steps in the criminal justice system, each one related to and building on the last. This concept is illustrated in Figure 1.1 below, which demonstrates the four stages of the process, as well as the likely influences at each. That is, once a person has been victimised they must decide whether or not they wish to inform the police. Numerous factors will influence this decision; factors that may be related to the individual, the incident, or other societal or practical concerns and are also likely related to the initial risk of victimisation. Once the police have (or have not) been informed the next step is in deciding if help is required. This will again depend on a number of factors, likely similar to those affecting the reporting decision. This model of the process of victimisation is the backbone of this thesis, and will guide the analysis and interpretation of both quantitative and qualitative data.

One further related aim is to consider the longer term impact of crime, specifically emotional and/or psychological impact and the influence that it in turn has on decision making in the aftermath of the initial incident of victimisation. It is therefore possible to identify a number of intermediary steps which will be completed while considering these aims:

Figure 1.1 The Process of Victimization



- Review the existing work on the impact of crime, the risk of victimisation, reporting crime to the police, and service use and non-use

- Consider the opinions and experiences self reported by victims

- Discuss which variables are the key determinants of victim's experiences, and whether the results of the statistical and qualitative analysis support or contradict each other.

- Consider which incident, individual and community level variables will best predict risk, reporting, service use and satisfaction

### 1.5 Overview of Methods

The methods used in this research are both quantitative and qualitative in nature. Mixed methodological research of this type is becoming ever more popular and in demand, and was thought to be particularly relevant to this project considering the nature of the topic under investigation. That is, when seeking to understand the essence of what may be a life altering and devastating incident on an individual's day to day life, it was thought necessary to go beyond binary 'yes' or 'no' responses to survey questionnaires. This is not to undermine the serviceability of large scale questionnaires and their analysis, far from it. Surveys of this type, such as the Scottish Crime and Justice Survey, by collecting data from

vast, nationally representative samples allow for far greater generalizability and reliability in the findings drawn from them than do convenience samples of interview participants. Furthermore, the time, money and manpower that goes into the planning, fieldwork and maintenance of such data sets is far, far beyond the scope of what could possibly be completed over the course of a PhD. By combining these two complimentary methods, it was hoped that I would be able to fill the gaps resulting from the lack of detailed contextual and impact specific data in the survey.

The primary quantitative methods employed are single level and multi-level binary logistic regression models. The use of multi-level models is necessary when using a hierarchically structured data set such as the SCJS, which nests incidents within respondents within communities or neighbourhoods. Although computationally challenging and time consuming, multi-level analysis is necessary in order to avoid errors of inference which occur when explanatory variables at one level are used to predict changes in a dependent variable at another, an error commonly referred to as cross-level misspecification. Multi-level models have the added advantages of allowing a researcher to determine (with some limitation) the amount of variation attributable to each level in the model as well as requiring software which is capable of performing more rigorous and reliable methods of estimation than packages commonly used for single level analysis such as SPSS.

The qualitative method used to compliment the modelling was a simple semi-structured interview revolving around the same core themes covered in the quantitative analysis including the impact of crime, and the effects of emotional and psychological reactions on decision making. Participants were recruited with the help of Victim Support Scotland and Scottish Government. Further particulars of the recruitment process will be presented in the chapter on methodology. Briefly though, respondents were interviewed either at their homes or at University offices. They were asked to describe their experience as a victim, covering the incident itself, their interaction with the police and criminal justice system, and finally about their experience of support services.<sup>2</sup> Data gathered in interview was transcribed and coded for emerging patterns and themes.

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<sup>2</sup> The full interview schedule is available in the appendix.

## 1.6 Structure of the Thesis

This thesis is structured into seven chapters. Following this introductory chapter will come a review of the four core areas of literature involved, namely research on the impact of crime, risk and vulnerability to victimisation, factors affecting a victims decision to report a crime to the police, and finally, the literature surrounding the use and non-use of victim services will be combined with a discussion of the effectiveness of such services. Chapter Three will then provide an overview of the research design, with an introduction to mixed methodological based research, the datasets employed and the variables to be tested, as well as the research questions and hypotheses guiding the investigation. Chapter Four will provide a guide to the different types of analysis used; broken down into two sections addressing the quantitative and qualitative methods respectively. This chapter will explain why the methods used were desirable over other possibilities, as well as describe the procedure followed during analysis.

Chapter Five will present the results of four sets of quantitative models, with each model addressing risk factors, reporting, use of and satisfaction with services respectively. Model 1, which investigates the risk of victimisation, will test a number of individual based demographic variables as well as neighbourhood characteristics for their impact on the risk of victimisation. The assumptions of relevant theories, including the Routine Activity/Lifestyle theory, the theory of Multiple Victimisation, and the Immunity Hypothesis will be used to inform variable selection and discussed in the results. Model 2 will build on Model 1 by testing the same demographic and neighbourhood characteristics in relation to the reporting of crime to the police. It will also test a number of variables suggested in previous research to impact reporting behaviour, such as crime type and other incident level characteristics. Model 3 will again test the same characteristics of individuals and their neighbourhoods, as well as a number of variables found in previous research to influence a victim's use or non use of available services. Finally, Model 4 will explore variables related to victim satisfaction.

In each case, bi-variate results will be followed with fully specified multi-variate multi-level models. Chapter Six will then present the findings from the qualitative interviewing, with results structured around a newly designed model of the coping process. Finally, Chapter Seven will attempt to draw together the findings from both quantitative and qualitative

studies through a hypothesis-by-hypothesis discussion of the results, as well as making some policy recommendations and suggestions for future research.

## Chapter 2: Literature Review

### 2.1 Introduction

As a genre, victimology now covers a substantial range of topics yet somehow manages to be lacking in any substantive effort to integrate this research into a coherent, theoretically grounded body of work. There are many gaps between different areas of victim based research, thus the challenge I am confronted with in this chapter is first to identify these gaps, and second, to see if they can be filled. In relation to this thesis, four areas are of particular relevance: the impact of crime, the risk of victimisation, factors affecting the decision to report crime, and finally, factors associated with the use of and satisfaction with support services. It just so happens that each and every one of these steps has a unique literature associated with it, and despite their obvious relation, little has been done to link them together. Therefore it will be necessary to review each body of work in turn and finally to see if some thread connecting them can be drawn out.

It is necessary first to look at the impact of victimisation to ground the literature that follows. By first establishing the substantial costs of crime, whether they are emotional, financial or physical, to individuals as well as society at large, it becomes clear why research is warranted which seeks to lessen this burden. Literature in this area is typically broken down into three subtopics, namely physical impact and/or injury, financial or economic loss, and psychological and/or emotional suffering. Here I will review findings from all three of these areas in turn, but will focus primarily on the psychological sequelae as it is only here that any theory has been developed.

Secondly, we must cover the risk of victimisation and the process of moving from non-victim to victim. Here I will focus on three core theories, each postulating an original, yet related primary cause of victimisation. Routine Activity/Lifestyle Theory (Felson and Cohen, 1980) suggests that it is the combination of desirable targets, motivated offenders and the absence of capable guardians which come together in space and time to create incidents of victimisation. Proponents of Repeat/Multiple Victimisation (Farrel and Pease, 2008) suggest it is prior victimisation that puts an individual at greatest risk; and finally,

Immunity Theory (Hope, 2008) suggests that it is the inability to remove oneself from disadvantageous situations which will most likely lead to victimisation.

After victimisation comes the decision to report or not report the incident to the police. Many variables have been investigated in the research which seeks to explain the under-reporting of crime; including previous experience of the police and criminal justice system, age, gender, social influence and the seriousness of the crime. Though again, there is little in the way of theory linking them together, let alone any linking with the research on victimisation risk.

One last section of literature review will cover research into variables predicting the use or non-use of victim services. Most victims receive little or no assistance in coping with the aftermath of crime despite widely available services; from the generic Victim Support to crime type specific networks such as Rape Crisis. This section will also cover literature surrounding victim satisfaction with the services they do receive (if any).

Once all four areas of literature have been covered, I will highlight their relevance to the current research, and attempt to draw out some commonalities and significant findings linking the different areas together. In so doing, I will also identify key research questions to be taken forward in the remainder of this thesis.

## 2.2 The Impact of Crime

Many victims of crime find their lives forever altered; the experience of criminal victimisation, be it violent or non-violent, is among one of the most stressful experiences a person can endure. Crime may affect physical, emotional, financial and social aspects of life, and is in fact likely to affect each of these areas to some extent. The study of impact has developed in numerous veins, with some researchers seeking to understand impact in terms of cost, while others focus more on our ability to function in society. That being said, psychological consequences will not be independent from financial ones, as, for example, depression as a consequence of crime may well result in significant time away from work; while financial loss as a result of crime may result in severe psychological anxiety and stress when it means there is no money to pay the rent or make necessary repairs. Physical

injuries may also lead to financial strain, as well as emotional anguish in the form of shame or guilt, not to mention a constant reminder of whatever misfortune has occurred. Although I have divided this review of the literature into separate sections targeting psychological, financial or physical impact, it is necessary to keep in mind the inter-relatedness of all three areas.

### 2.2.1 Psychological and Emotional Impact

There is an abundance of literature surrounding the impact on the psychological functioning and wellbeing of victims of crime. This is not surprising as psychological consequences, serious physical injuries aside, are likely to be the most enduring and damaging. In their book, Bard and Sangrey (1987) state that “the crime victims’ experience can never be reduced to a formula... violation disrupts the self in as many ways as there are victims, at the same time, most victims experience at least some of the feelings and behaviours associated with a crisis reaction, and people’s reactions to crisis have a pattern” (p.17).

Any traumatic event, including crime, may precipitate an acute psychological response, commonly labelled a crisis. Roberts (2005; cited in Green and Roberts, 2008) defines the stages of a crisis reaction as, first of all, perceiving a precipitating event as being meaningful and threatening, followed by an assessment of inability to modify or lessen the impact of the stressful event with traditional coping methods. This leads to experiencing increased fear, tension, and/or confusion and exhibiting a high level of subjective discomfort, which proceeds rapidly to an active state of disequilibrium: a crisis. Characteristic features of such a crisis response include fear, anger, recurrent distressing thoughts, guilt, depression, anxiety, bad dreams, irritability, and generalised hyper-arousal, all symptoms of what is commonly called ‘fight-or-flight’. The essential factor influencing a crisis is however, the cognitive appraisal of an imbalance between the difficulty and importance of the problem and the resources available to deal with it. That is, whether an individual perceives themselves in a state of crisis depends largely in part on their assessment of the event.

Crisis theory offers a framework for understanding responses to crime. Building on Roberts’ definition of crisis, Bard and Sangrey (1987) amongst others (see Green and



Roberts, 2008), have suggested a model of crisis which develops in three stages: the initial or acute disorganisation of the self termed the *Impact* stage, followed by a period of struggle or *Recoil*, to the eventual readjustment of the self in the *Reorganisation* phase.

Immediately after a crime, in the impact or crisis stage, some victims may experience a sense that their personal intactness and integrity has been threatened or even lost. Thus the impact phase is often marked by feelings of vulnerability, disorganisation, shock, profound loneliness, dependency and helplessness (Bard and Sangrey, 1987). For example, research suggests that one of the most common immediate reactions of burglary victims is surprise or shock (Maguire, 1980). Anger, disbelief, confusion, fear, and anxiety are also reported as some of the immediate reactions of rape victims (Kilpatrick and Resick, 1979). Rape, robbery, and assault victims may view themselves as weak, frightened, helpless, or out of control immediately after the attack (Krupnick, 1980; cited in Green and Roberts, 2008). Victims may also feel confused during the impact stage; they may have trouble recalling events related to the crime, and be unable to think clearly or talk confidently. Thus victims can be especially vulnerable during this phase to the impatience, anger or frustration of others which will only serve to worsen their state. If a victim does not get proper support during this phase, their defences may come back in a dysfunctional way that will cause difficulty later. This is why early support is so important and why crisis intervention models of intervention remain the mainstay of victim support provisions. This acute state of crisis or active disequilibrium is however time limited, and typically expresses several hours or several days after the crime, and may last from four to six weeks (Turner, 1996).

Bard and Sangrey (1986) labelled the second stage in the crisis reaction as the recoil stage. At this time, which typically lasts from 3 to 8 months post-crime, symptoms may include oscillation in feelings from fear to anger and sadness to elation, or self-pity and guilt. It is in this stage that individuals begin to reconcile to any violation they have experienced and to reintegrate into life. According to the authors, this second phase involves two key behavioural components; the first of which involves the addressing any painful emotions aroused by the experience, while in opposition the second involves any attempts made to defend against these painful emotions by eschewing them.

The recoil stage may be a hard time for family and friends of victims, but it is also a time when they can be the most helpful and supportive. Mood swings and anger commonly

occur in this stage and may be extremely challenging for close others as it is not uncommon for victims to become angry with people who are close to him or her (Petersson, 2009). Supporters must remember that this anger is not intended for them, but a consequence of the fact that victims are typically unable to vent their anger at its rightful target, the person or people responsible for their victimisation. Bard and Sangrey (1986) propose that this absence of the criminal creates an emotional vacuum, where the victim has no way to confront the person who made him or her angry. This displaced anger may also be turned inwards by those who find it difficult to express emotion, resulting in an equally hazardous self-blame. Perhaps the most acute example of this type of destructive anger is the common break down in the surviving families of murder victims (Masters et al., 1987). In fact, families of homicide victims speak of losing up to ninety percent of their friends because they have difficulty interacting with them (Kenney, 2010).

Eventually follows the third and final stage of recovery, the Reorganization Stage. In this stage feelings of fear and anger abate, the result being emotional energy remains which is then available to invest in other things (Bard and Sangrey, 1986). According to Horowitz (1976), many victims experience a progressive dissolution of symptoms within six months of the traumatic event, however, the more serious the violation, the longer the reorganisation is likely to take. Furthermore, Symonds (1975, 1976) reports that by establishing more effective defensive-vigilant behaviours and revising their values and attitudes to readjust to everyday life, the victim is able to resolve the trauma of the victimization. That being said, it is unlikely that an individual will ever entirely forget a crime. The suffering may lessen, but their view of the world will likely be permanently altered in some way, depending of course on the severity of the crime and the degree of the impact (Frieze et al., 1987).

Long-term reactions and lingering psychological problems, although not ubiquitous, are unfortunately very common in many victims (Green and Diaz, 2007). Research conducted with victim service providers has revealed low self-esteem, depression, guilt, fear, and relationship difficulties to be frequently cited as long-term problems experienced by clients. For example, after a year, rape victims were more depressed and reported less pleasure in their daily lives than those in a control group, as well as suffering from decreased sexual activity, flashbacks, physical pain during sex, and difficulty in experiencing orgasm (Frieze,

1987). Although evidence does exist proposing that substantial decreases in anxiety and other fear reactions occur within the first few months after the crime (Frieze, 1987) many victims of rape reported not feeling that they had recovered from the attack as many as four to six years after the incident.

Longer term psychological distress is unfortunately not limited to victims of severe violent and sexual assault, and may encompass a range of outcomes, including discrete psychiatric disorders, anxiety disorders, depressive disorders and substance abuse/dependence may develop as well as more general measures of distress and impaired daily functioning. These conditions can have devastating effects on victims' lives and markedly affect their functioning at a personal, social and occupational level (Bisson and Shepard, 1995).

Post traumatic stress disorder (PTSD) is probably the most researched area of long term psychological impact. According to the Department of Veterans Affairs in America, an estimated 7.8% of Americans will experience PTSD at some point in their lives, with women (10.4%) twice as likely as men (5%) to develop PTSD. Approximately 3.6% of U.S. adults aged 18 to 54 (5.2 million people) will be diagnosed with PTSD during the course of a given year. This however represents only a small portion of those who have experienced at least one traumatic event; 60.7% of men and 51.2% of women reported at least one traumatic event. The types of trauma most often associated with PTSD for men are rape, combat exposure, childhood neglect, and childhood physical abuse; the equivalent for women is also rape, sexual molestation, physical attack, being threatened with a weapon, and childhood physical abuse (Department of Veterans Affairs, 2007). In addition, crime factors such as physical injury and perceived life threat are strongly associated with the development of PTSD such that injured victims, victims who feared injury and victims who feared death are more likely to develop PTSD (Kilpatrick et al, 1989).

The serious psychological impact of rape and other sexual offences on victims has been the focus of much research. For example, Rothbaum et al., (1992) prospectively studied 95 female rape victims and found that 47% of them met the criteria for PTSD three months after the rape. Lopez et al., (1992) described a retrospective questionnaire survey of 436 rape victims in which 71% reported depression and 37.5% chronic PTSD. Breslau et al., (1991) found that 22.6% of those physically assaulted and 80% of rape victims developed PTSD. Kilpatrick, Edmunds, and Seymour (1992) examined PTSD and depression in rape

victims and in the general population. Findings indicated that 31% of the rape victims were found to have PTSD and only 5% of the women in the general population experienced PTSD symptoms. In addition, 30% of the rape victims experienced major depression while only 10% of the women in the general population experienced major depression.

Reactions to victimisation are however highly crime specific and distress following victimisation is far from universal (Hoyle and Zedner, 2007). That is, not all persons experiencing the same stressor (e.g., rape), exhibit the same patterns of psychological distress. At the same time, a similar type of violence may result in different types of psychological distress, and experiencing different forms of victimisation often results in the same response of psychological distress. So, individuals experiencing very different types of stressors (e.g., victims of a hurricane disaster and rape victims) can evidence similar outcomes, including posttraumatic stress disorder, depression, and anxiety (Rubonis and Bickman, 1991; Steketee and Foa, 1987). In keeping with the findings of research on major traumatic events other than violent crime, the greater the severity of the stressor the more likely psychological consequences are to ensue (Bisson and Shepard, 1995). Not surprisingly then, the SCJS (Page et al., 2009) found that victims of personal crimes, as opposed to victims of theft, vandalism etc cited a greater range of emotions, with anger being the most commonly reported, followed by shock, vulnerability, fear, and tearfulness. Data from the Victim Impact Statement Scheme Evaluation (Leverick et al., 2007) also had similar findings. Respondents who had been victims of relatively serious offences (aggravated assault) were more likely to report that they had suffered serious emotional effects than victims of theft by housebreaking or assault without any aggravating features.

Elaborating further on the link between stress and symptomology, Resnick et al., (1992) compared victims with 'high crime stress' to victims with 'low crime stress' in a community sample of 295 female crime victims. They found a much higher rate of PTSD among the 'high crime stress' group (35% v. 13%). The dimensions they found to be particularly associated with a greater risk of PTSD were threat to life or physical integrity, physical injury, receipt of intentional harm, exposure to grotesque sights, violent or sudden death of a loved one, subjective perception of threat, and completed rape. These factors were far more important in determining psychological distress than pre-crime factors such as depression. In addition, Kilpatrick et al., (1989) found that individuals experiencing rape, physical injury,

and perceived life threat were 8.5 times more likely to develop crime related PTSD than individuals who experienced crimes without these elements. Others, (see Frieze et al, 1987) suggest that differences in symptomology may arise as a result of the pre-victimization adaptation level of the person and on the effectiveness of coping strategies employed; with further consensus emerging regarding a positive association between the number of traumatic events experienced and adverse mental health consequences (Freedy et al, 1994).

A small number of researchers (Winkel and Vrij, 1993; Janoff-Bulman, 1979; Abramson, Metalsky, and Alloy, 1989) have employed a number of related theories in an attempt to explain differences in psychological adjustment following victimisation. Theories of attribution, equity, and just-world, have all been utilised in this manner. For instance, Attribution Theory is an umbrella term for numerous socio-psychological concepts which seek to explain how people understand the causes of events and behaviour. Two key types of attributions are common; internal or personal, and external or situational attributions. When an internal attribution is made, the cause of the given behaviour is assigned to the individual's characteristics such as ability, personality, mood, efforts, attitudes, or disposition. When an external attribution is made, the cause of the given behaviour is assigned to the situation or environment in which the given behaviour occurred; in other words, the actor is not wholly responsible for the action. This theory has allowed for certain predictions about the emotional and behavioural consequences of a crime, depending on the type of attribution made. It is possible to see how attributions are related to the crisis reaction discussed above; following an incident an individual will make a cognitive appraisal of the stressful situation in either a positive or a negative manner, that is, they will assess the victimisation to be the result of their own actions (the victim) or of an external source.

There are two competing applications of this theory: one suggesting that internal attributions will be harmful to the victim's recovery, and another suggesting just the opposite. Logic might suggest that seeing oneself as responsible for one's victimisation might be maladaptive; blaming one self and further attributing the victimization to enduring and pervasive factors within oneself will lead to hopelessness about the future. This is precisely what Abramson, Metalsky, and Alloy (1989) suggest: that internal attribution is damaging. They in turn propose that by utilizing external attributions and

avoiding self-blame for crimes, people will protect their self-esteem, feel righteous anger and entitlement to sympathy and support. However, other research suggests that such self-blame may in fact be quite functional for a victim; by attributing the blame to themselves, the victims retain more control than if they were to blame someone else. In the Janoff-Bulman model (1979) it is claimed that such self-blame can be functional following victimization, but only if it involves attributions about behaviour rather than static personality characteristics. This is because behavioural self blame involves attributions to a controllable and modifiable source, and thus provides the victim with a belief in the future ability to avoid re-victimization (cited in Green et al., 2005). Whatever a victim can do to feel safer will be emotionally reparative, therefore the simple fact that they feel able to do something will help to restore some of their lost autonomy (Bard and Sangrey, 1986). In a study investigating the relationship between character attributions and coping, Winkel and Vrij (1993) found that victims employing external attributions were least successful in using the emotion-focused coping style and reported higher levels of fear; thus supporting the Janoff-Bulman model.

In this model, Janoff-Bulman (1992) states that people often operate on the basis of an underlying assumption about the way the world is and why things happen. In order to function effectively in their daily lives, people need to believe that the world is safe and just (Bard and Sangrey, 1986). Thus the unfortunate commonplace phenomenon of victim blaming is actually a by product of society's need to maintain this belief. Perceiving others as victims is threatening, particularly if the choice of victim is believed to be random. If it could be anyone, it could also be oneself. However, if a victim was in some way responsible for the terrible thing that has happened to them, a person can avoid becoming a victim by avoiding being like the victim. Such processes help maintain the belief in one's own invulnerability. This is in essence an extension of the 'bad things don't happen to good people' line of thought; when something bad happens, people need to establish a reason so that they can feel that the threatening events in their lives makes sense. This is what Lerner (1970) termed the "Just-World Theory": simply, the assumption that people get what they deserve.

For some individuals who experience victimisation the world no longer seems a just and rational place; a sense of security is difficult to achieve, as is trust in other people. A victim

in this situation must cope not only with the direct consequences of the crime itself, but also with the loss of their belief in invulnerability. This means that one feels more at risk for future victimization, with such fears only exacerbating existing feelings of stress. Janoff-Bulman argues that it is the challenging of these beliefs of justice and invulnerability that lead to the loss of control following the crime, as well as feelings of anger and rage. Feelings of anger and frustration are in turn linked to feelings of inequity. The concept of equity builds on the concept of a just world; it is a moral precept whereby people believe they have the right to be treated fairly (Frieze et al., 1987). When this precept is violated, people tend to express feelings of injustice, or unethical and wrong behaviour. The significance that people place on the need to receive fair outcomes in their relations with others has become the subject of extensive theoretical and empirical research. Equity Theory, originally advanced by Adams (1963) and later expanded upon by Walster, Berscheid, and Walster (1973) posits that individuals who are under rewarded (i.e., victimized) tend to feel angry and distressed and that this distress is in direct proportion to the degree of harm. That is, the greater the degree of harm, the greater is the magnitude of perceived inequity and, consequently, the more strongly the victim is aroused and distressed (Frieze et al., 1987). According to this theory, a victim can reduce this sense of inequity by improving their outcomes or by worsening the outcome for the offender, or by means of a cognitive reassessment in which they re-evaluate the victimising experience as, for example, being less minor than in fact it was. A great deal will however depend upon the receipt and quality of support received by the victim, as this may serve to offset the violation by restoring confidence to the victim in the essential trustworthiness of most people.

In this section of the chapter, we have covered the effects of crime on psychological and emotional health. Each of these areas has been researched extensively, and approached from numerous perspectives. When discussing impact, it is only here that we see any hint of theory emerging or explanations for findings; that perhaps crime and its consequences can be so life shattering because that is precisely what it does: shatter the perceptions we have about the world we live in that have been built up and maintained over a lifetime. There are of course exceptions to every rule, not every victim finds it so difficult to cope. Some are able to shrug off the stress inherent to victimisation, either through successful coping strategies, cognitive reassessment, or simple faith in the imperfect human condition.

In addition to the psychological and emotional impacts of crime, victims must often deal with the more practical financial effects such as loss of earnings and/or savings, as well as any physical consequences. These will each be discussed in turn in the next two sections.

### 2.2.2 Financial and Economic Impact

The financial and/or economical costs of crime are the simplest to identify and quantify. In contrast to psychological or emotional impact they are more clearly understood as being tangible. That is, easy to calculate in monetary terms, or broken down into realized costs, which may in turn be broken down into direct and indirect costs. Direct costs require resources diverted from other uses as a result of crimes that have occurred, while indirect costs are the result of, for example, the loss of earnings and productivity that results from victims taking time off work to recover from crime (Dolan et al., 2005). A further category of cost, anticipatory costs, are those resources which are spent attempting to reduce the chances of a crime occurring.

The financial burden of crime on victims may take multiple forms including direct losses incurred from crimes of theft or damage to property or goods, the loss of earnings due to absences from work, replacing stolen items, security upgrades, and the cost of healthcare and counselling sessions among others. Some victims may also feel inclined to move home as a result of either direct or indirect victimisation (Xie and McDowall, 2008). Absences from work following crime are common and may be due to the fact that many victims require leave as a result of the emotional, physical and practical impact of the crime. This time taken off work may adversely affect the individual victim as well as society and the economy at large (Brand and Price, 2005). The difficulty in going back to work may be further reinforced by the fact that (in Scotland) 10% of crimes take place in or around the victim's workplace (SCVS, 2006). The Home Office has developed overall calculations of how long a victim usually needs to stay off work as a result of a violent crime, both for physical and psychological causes. It estimates that a victim who has suffered a broken bone will generally take time off work corresponding to 31 working days; a victim with a broken nose will take 11 days off work and a victim with concussion will need approximately six days in total off work. A victim suffering from post-traumatic stress disorder on average



takes time off work corresponding to 257 working hours. A victim suffering anxiety needs 259 days and a victim suffering from depression on average takes between 89 (mild) to 835 (severe) days off work (Brand and Price, 2005). This time away from work as a result of crime can be defined as 'lost output' to both the victim and their employer as they must pay the wage of the victim, but receives no productive input as a result.

It is generally well accepted that estimating the intangible cost of crime is difficult. Estimates of the financial impact of crimes have been attempted as well as estimates of the overall cost of crime in Britain. For example, according to recent Home Office estimates, the consequences of crimes against individuals and households accounts for £25 billion of the estimated £60 billion total cost of crime (Dolan et al., 2005). Further estimates have been made regarding domestic violence, where the total cost was estimated to be over £5.7 billion a year. All costs of domestic violence for the government, employers and victims are however estimated to around £23 billion (Home Office, 2004). Costs for other crimes have been estimated as: violence against the person: £11,617, common assault: £1,607, sexual offences: £35,095, robbery/mugging: £8,129, and theft: £942 (Home Office, 2004). Similar research conducted in the US presents similar staggeringly large cost figures; however one must keep in mind that America has the highest violent crime rate of any industrialised nation, with over 18 million incidents recorded annually (Bureau of Justice Statistics, 2011). With so many incidents, it is unsurprising that a report by the Centre for Disease Control and Prevention calculated the annual health-related costs of rape, physical assault, stalking, and homicide by intimate partners to exceed \$5.8 billion each year (Centres for Disease Control and Prevention (CDC), 2003; cited in Green and Roberts, 2008). Further estimates from the National Institute of Justice (NIJ) place the intangible cost for crimes involving a fatality at \$93 billion; the cost of rape and sexual assault is approximately \$127 billion; the cost of robbery and attempted robbery with injury is \$11 billion; the cost of assault or attempted assault is \$93 billion; and the cost of burglary or attempted burglary is \$9 billion annually (National Institute of Justice, 1996). Research conducted by the National Victim Centre and Crime Victims Research and Treatment Centre (1992) investigating the tangible and/or physical cost of crime to victims found, for example, the average tangible cost to a victim of rape to be \$52,058, whereas the average cost to a victim of assault or robbery is \$12,594.

These estimates of the financial and economical burden of crime may seem abstract and disconnected from the actual experience of any given individual, but they are useful in a number of respects. For example, Dolan et al., (2005) suggest that information about the full costs of different crimes enables researchers to compare the costs to society of one crime with another. Thus, when the number of some crimes increases at the same time that the number of another crime decreases, it becomes possible to say something about the trends of the total impact of crime on society; but only if the impact of different crimes can be compared using a single metric. Information regarding the costs of crime can also be used to inform resource allocation, an especially relevant consideration in light of the recent financial crisis and subsequent cuts to public sector spending. Spending to reduce the cost of crime is also related to the effectiveness of services for victims, therefore, by determining, for example, the cost of psychological interventions, it is possible to target funding at the most effective support strategies.

### 2.2.3 Physical Impact

Apart from having a financial impact, crime may also have a strong physical impact on victims. Primarily, the incident itself may result in life threatening injuries from, for instance, gunshots or knife wounds. Secondly, the crime may lead to future health conditions such as rapid heart rate, heart attack and stroke. Resnick (1992) found that physical injuries as a result of crime may lead to heart attacks, fractures, sexually transmitted diseases, chronic infection, and systemic disorders. While others suggest that being a victim of crime can lead to an increased risk of cardiac distress and chronic pain, so decreasing the effects of victimisation has a positive impact on victims' physical health conditions (Petersson, 2009).

Much of the literature in this area focuses on children and women as victims, especially as victims of inter-personal/domestic violence and sexual assault. Some evidence of long term physical injury resulting from childhood abuse has also been reported such that child physical and sexual abuse has been shown to have etiologic significance in the development of chronic pain syndromes for women (Lampe et al., 2003). Specific associations have been reported for facial pain, pelvic pain, vaginismus, gastrointestinal pain and fibromyalgia.

Looking more closely at domestic abuse, 75% of cases of domestic violence result in physical injuries, ranging from minor bruises to more serious internal injuries, though many women also report psychological effects such as finding it harder to trust people and form relationships (Walby and Allen, 2004). Research suggests that a wide range of children's developmental outcomes are compromised by exposure to domestic violence, including social, emotional, behavioural, cognitive, and general health functioning. Abused women are more likely than others to suffer depression, anxiety, psychosomatic symptoms, eating disorders and sexual dysfunctions. Violence can also affect their reproductive health which may further impact on their mental wellbeing. Domestic violence commonly results in self-harm and attempted suicide. About 33% of women attending emergency departments for self-harm are victims of domestic violence; abused women are five times more likely to attempt suicide; and 33% of suicide attempts can be attributed to current or past experience of domestic violence (Pettersson, 2009). Among the most immediate reactions to violence are anxiety, accompanied by sleep disturbances and nightmares. Other physiological reactions include diarrhoea, headaches, increase in psychosomatic symptoms, and aggravation of any previous medical problem (Leymann, 1985). Such immediate visceral responses may diminish with time, but if treatment is not instituted or if supports are hostile or unavailable, the responses can become long term (Green and Roberts, 2008).

Children who witness domestic violence have similar outcomes to physically abused children. Child abuse increases the level of emotional and behavioural problems above and beyond exposure alone, with sexual forms of interpersonal violence causing greater levels of distress (Wolfe, Crooks and Lee, 2003). Short-term effects of domestic violence on children include aggressive behaviour, problems at school, fear, anxiety, depression and becoming withdrawn. Long-term effects contain an increase in violence and aggression, being harder to control, resentment, low self-esteem and problems trusting people and forming relationships (Walby and Allen, 2004).

It is clear from this research that victimisation can have a serious impact on physical health, in addition to financial difficulties and economic strain. At this point though, I would like to reiterate that, despite a considerable body of research in both of these areas, theory is still relatively absent. There is nothing to link economic cost to physical injuries, let alone to the psychological and emotional impact already covered, that is, a theory that incorporates how

the psychological impact of crime can interact with the economic and physical to determine an individual's total experience of crime.

As a whole, this section of the chapter showed that reactions to crime are complex; an incident may affect multiple areas of life and have a long term impact on functioning. Now that we have seen how damaging, costly, and long lasting the effects of crime can be, it becomes clear why so much research, to be highlighted in the next section, has sought to identify salient risk factors, in that they may be addressed in order to lower crime rates and accordingly lower the number of those suffering as a consequence.

### 2.3 Victim or Non-Victim: Research on Predicting Risk

Moving from non-victim to victim is the first stage or step in the process of victimisation. As such, a number of theories regarding victimisation risk which have evolved in conjunction with the analysis of large scale victimisation surveys will be addressed in this section. Hope (2008) describes two phases through which these theories have developed, each one concentrating on one aspect of the frequency distribution of victimisation; this is termed the Double Hurdle conceptual framework. The first hurdle seeks to distinguish non-victims from victims by analyzing the factors that may contribute to, and thus predict on the basis of a priori risk, the general population's likelihood of susceptibility to crime victimisation (Hope, 2008). This hurdle is linked to the Routine Activity approach (examined in more detail below) in the sense that factors such as one's lifestyles or community of residence may increase the probability that prior non-victims will come into contact with motivated offenders on a routine, or at least non-random, basis (Miethe and Meier, 1994). The second hurdle focuses on repeat or multiple victimisations. This is the mechanism by which the victim of a single incident either faces no further instances of victimisation, or sees their victimisation amplify to higher frequencies over time (Hope, 2008). This hurdle is in turn linked to a number of theories concerning factors hypothesized to facilitate the shift from single to repeat victimisation, as well as from victim to non-victim. Two such theories will be examined in more detail below. Together, the literature discussed in this section will be used to identify the factors most related to the risk of victimisation, which may then be tested in the first stage of the current investigation of the process of victimisation.

### 2.3.1 Routine Activity Theory

The foundations of Routine Activity, Lifestyle and Opportunity theories were established with the recognition that what people do and how they behave places them at either a greater or lesser risk of criminal victimisation (Maxfield, 2008). The origins of theories linking lifestyle and its antecedents with victimisation were first presented in detail by Hindelang et al., (1978). These authors described lifestyle as "... *routine daily activities*, that is, both vocational activities such as work, school, keeping house, etc. and leisure activities". Later Sparks (1981) described how potential victims may precipitate, or more commonly, facilitate predation by routinely failing to take certain precautions. Most notable however, are the contributions of Cohen and Felson (1979, 1980) who defined routine activities as 'any recurrent and prevalent activities which provide for basic population and individual needs, whatever their biological or cultural origin'. Thus Routine Activities would include formalized work, as well as the provision of standard food, shelter, leisure, social interaction, learning and child rearing. Routine activities may occur at home, in jobs away from home, and in other activities away from home (Cohen and Felson, 1979). The routine activity approach specifies that household and family activities entail lower risk of criminal victimisation than non-household non-family activities. Much support for this claim may be found in the literature, which suggests that, for example, those who frequently spend time out of the home during the evening are at greater risk of victimisation and that homes which are more often left unattended are at greater risk of being burgled.

Cohen and Felson further argue that the dramatic increase in the reported crime rates in the United States since the 1960's is linked to changes in the routine activity structure of American society away from home life and to a corresponding increase in target suitability and decrease in guardian presence. Target suitability or target attractiveness refers to a person or property that an offender could potentially pursue for the purposes of crime; the idea being that some targets are more suitable than others. Target suitability is determined by two factors, namely the accessibility of the potential victim as a crime target and the attractiveness of the person (or property) as a target. The attractiveness of the target is related to its material or symbolic desirability for the offender. For example, a large house with two expensive vehicles in the drive may suggest many valuables within. Guardian presence on the other hand, refers to anyone or anything that would make a suitable target

more difficult to victimise. That is, according to Cohen and Felson, as people began to spend more time away from home, their homes became more vulnerable to crime.

In their paper Cohen and Felson focussed on direct contact predatory crimes which they defined, according to Glaser (1971), as illegal acts in which "someone definitely and intentionally takes or damages the person or property of another". However, rather than emphasizing the characteristics of offenders, this approach focuses upon the circumstances in which offenders carry out predatory criminal acts. In order for these circumstances to result in acts of criminal victimisation, there must be a convergence in space and time of likely offenders, suitable targets and the absence of capable guardians against crime (Cohen and Felson, 1979). It is suggested that the lack of any one of these three elements is adequate to prevent the successful completion of a direct-contact predatory crime, and that the convergence in time and space of suitable targets and the absence of capable guardians may even lead to large increases in crime rates without necessarily requiring any increase in the structural conditions that motivate individuals to engage in crime (Cohen and Felson, 1979). Recent research has expanded the theory to instances of not only personal victimisation but household, school, and workplace victimisation. Despite its utility, Routine Activity theory does leave some aspects of victimisation unexplained. These are predominantly aspects of victimisation influenced by variables other than an individual's daily routine activities. Garofalo's (1987) revised lifestyle model attempts to rectify this dilemma by incorporating individual differences in victimization unexplained by lifestyle, association, target attractiveness, perceptions about crime and behavioural reactions or adaptive behaviours that can reduce risk. In other words, individual variation across such variables as age and sex are reduced, in some cases substantially, by incorporating routine activity variables, but differences in risk often persist across certain socio-demographic groups (Maxfield, 2008). Gottfredson (1981) raises a related point about "micro-environments," arguing that large-scale surveys, not to mention aggregate studies, fail to distinguish the features of particular areas that are associated with greater risk, thus recognizing that individual risk of victimization varies both by features of neighbourhoods and by individual behaviour (Maxfield, 2008). For example, given constant levels of exposure as measured by the number of nights people leave their homes for leisure activities, an individual's risk of personal theft can nonetheless vary according to where she/he lives. Others such as Sherman (1987) suggest that the major limitation of the

evidence for the theory, however, is the lack of testing with ecological data on actual places where offenders, targets, and weak guardians converge.

### 2.3.2 Social Disorganisation

Whereas Routine Activity focuses on the actions and behaviours of individuals, another theory, namely Social Disorganisation, focuses instead on the nature of location as the primary cause of crime and victimisation. The core principle of Social Disorganization theory is that place matters, that an individual's residential location is as important, if not more so, than individual characteristics or behaviours in shaping the likelihood that a person will be affected by crime. Social Disorganisation originated in the Chicago School with the work of Shaw and McKay (1942) and focused primarily on juvenile offending, their general hypothesis being that low economic status, ethnic heterogeneity, residential mobility and family disruption lead to social disorganisation, which in turn increases rates of crime and delinquency (Sampson and Groves, 1989). They based their theory on the discovery that high delinquency rates persisted in certain Chicago neighbourhoods for extended time periods regardless of changes in racial and ethnic composition. Thus, they concluded that neighbourhood ecological conditions shape crime rates over and above the characteristics of individual residents (Kubrin and Weitzer, 2005).

Other researchers (i.e. Sampson, 1993), particularly Wilson and Kelling (1982), expanded on the ideas of Shaw and McKay in their own work on Broken Windows. These authors suggested that, at the community level, disorder and crime are usually inextricably linked in a kind of developmental sequence. In their original article, Wilson and Kelling describe the phenomenon whereby "social psychologists and police officers tend to agree that if a window in a building is broken *and is left unrepaired*, all the rest of the windows will soon be broken. This is as true in nice neighbourhoods as in run-down ones. Window-breaking does not necessarily occur on a large scale because some areas are inhabited by determined window-breakers whereas others are populated by window-lovers; rather, one unrepaired broken window is a signal that no one cares, and so breaking more windows costs nothing" (p 2-3). Once social breakdown begins and communal barriers are lowered, crime can occur anywhere.

Thus far we have reviewed two theories focusing on risk factors related to the initial stage of the hurdle; the process of moving from non-victim to victim. Routine Activity focused primarily on the characteristics and behaviours of individuals whereas Social Disorganisation focused on the characteristics of community and the effectiveness of social control. In this next subsection, we will cover two theories relating to the second hurdle, that is, they address the question of repeat victimisation and the possibility that the greatest predictor of victimisation is having been a victim already.

### 2.3.3 Multiple Victimisation and Event Dependence

The phenomena of repeat and/or multiple victimisation was first addressed in the late-seventies in the works of Sparks et al., (1977, 1981) and Hindelang et al., (1978). Analysis by these authors suggested that the spread of repeat victimisation was not consistent with the Poisson distribution, which would suggest that repeat victimisation was not caused by misfortune or bad luck. That is, according to the Poisson distribution the number of observed incidents of victimisation ( $k = 0, 1, 2, \dots k$ ) would be characterized by a transition rate which would remain constant over the entire population surveyed (Farrell and Pease, 1998). However, almost invariably, the research has shown that observed and expected distributions do differ to a statistically significant extent: observed distributions contain more non-victims, and more multiple victims, than would be predicted by the Poisson distribution (Sparks, 1981). Data from the British Crime Survey (BCS) has also been used to demonstrate the extremely skewed nature of the distribution, such that 68%, or over two thirds of the population, were not victimised during the survey period but that those people who reported having been victimised on two or more occasions, 14% of the population, reported 71% of all the incidents. The skew of the distribution is such that the 3% of the population who experience five or more crimes suffered almost a quarter of all crime reported (Gottfredson, 1984). Findings by Polvi et al., (1990, 1991), who studied residential burglary in Saskatoon, Canada, suggest not only that repeat victimisation is a significant proportion of all victimisation, but that the greatest risk for a repeat was in the period immediately after the original incident, though the magnitude of this risk dramatically declined with time. Polvi et al., (1991: 412) stated that, "The likelihood of a repeat burglary



within one month was over twelve times the expected rate, but this declined to less than twice the expected rate when burglaries six months apart were considered. Analysis of the repeat burglaries within one month showed that half of the second victimisations occurred within seven days of the first.” Further evidence suggests that repeat victimisation is highest, both absolutely and proportionately, in the most crime-ridden areas (Trickett et al., 1991), which are also the areas that suffer the most serious crime (Pease, 1988).

Findings such as these have been used to support claims, mostly attributed to Farrell and Pease (1998), regarding the utility of targeting repeat victims for crime prevention policy. The logic is essentially that massive reductions in crime are possible simply by targeting and thus reducing the number of repeat victimizations. The most commonly cited research in support of these claims is from the Home Office’s reducing burglary initiative, specifically the Kirkholt Project. Findings from the project reported decreases in burglary of to 40% based on the targeting of repeat victims (Pease, 1991). However, though still commonly cited, these results have been hotly contested, and the results questioned in the literature (see Hope, 2004). One flaw in research based on repeat victimisation is the tendency to see repeats primarily as a consequence of prior victimisation without considering other factors which may have a significant impact. This is known as event dependence, a concept which implies that an initial incident of victimisation will increase the probability of a subsequent event (Tseloni and Pease, 2003). In other words, the initial event ‘boosts’ the probability of a second event occurring. On the other hand is the concept of heterogeneity, which implies that individuals or households have a constant chance of being victimised which is not affected by their history of prior victimisation. Heterogeneity is thus conceptualized as acting as a ‘flag’ for an enduring risk of victimisation (ie vulnerability) and is captured in the effects on victimisation of any demographic variable, individual or household (Tseloni and Pease, 2003). Recent research into repeat victimisation has sought to untangle the variation in risk accounted for by event dependence and heterogeneity (see Osborn and Tseloni, 1998; Wittebrood and Nieuwbeerta, 2000). Tseloni and Pease (2004) summarize the problem as a ‘need to understand whether repeat victimisation reflects risk which attended the target and led to each offence against it, or whether prior victimisation communicates something to the offender which leads to the risk increasing’.

This section has introduced two new explanatory variables in terms of victimisation risk over and above individual and/or neighbourhood characteristics, event dependence and risk heterogeneity. The next and final section presents one further explanation for victimisation risk, the inability to remove oneself from risk, or achieve immunity.

#### 2.3.4 Immunity Theory

Findings from victimisation surveys and other research indicate that crime victimisation is a relatively rare event yet that despite its rarity there are more high-frequency crime victims than would be expected by chance. As a solution, Hope and Trickett (2008) have suggested a new model of victimisation based on the assumption of two opposing risk groups in society, an immune group which is relatively free from victimisation, and a chronic group which suffers multiple victimisations over time. In general though it is assumed that the population as a whole will have a tendency towards immunity; this is due to the fact that people will take actions to avoid victimisation, or will never be confronted with crime in the first place. Thus, the distribution of crime victimisation in the population will be affected by the relative sizes of these two groups (Hope, 2000). However, Hope and Trickett go on to suggest that this capacity for immunity is not equally distributed throughout the population (Hope 2008). This is likely the result of some people being incapable of acquiring immunity as promptly and/or as certainly as others rather than actively exposing oneself to risk as the routine activity approach would suggest.

In order to assess their theory, Hope and Trickett (2008: 47) tested for stability over time in the distribution of groups identified by their general frequency levels of victimisation. This was done via the analysis of three hypotheses; that there would be a general trend towards immunity over time regardless of prior victim state, that there would be a sub group in the population that appears to be immune from victimisation as well as a chronic group that is repeatedly or frequently victimized; and that non chronic victims will revert to the general tendency towards immunity shared by the population as a whole.

Results were in support of all the above hypotheses. Thus, the most likely outcome following crime victimisation over the long term is no further victimisation. Furthermore, the source of crime victimisation (motivated offenders) comes primarily from victims

environments, therefore very vulnerable residents in high risk environments continue to be victimised because they are unable to attain immunity, or to remove themselves from risk within these environments (Hope and Trickett, 2008:48). Victims in these environments may appear to have a non random probability of repeat criminal victimisation over time because they are more likely to remain unprotected in an environment where the probability of victimisation remains high and constant.

Therefore, while chronic victims do not possess any additional risk factors that mark out their excessive risk, their continued vulnerability may indicate incapacity to remove themselves from risk, while the category of non victims may mask a variety of types of immunity (Hope and Trickett, 2008).

Based on these findings the authors have suggested the abandonment of the Double Hurdle model of victimisation discussed above, particularly the assumption of exposure to risk over time, shared by both the Routine Activity and Repeat Victimisation theories. Event dependence, though no doubt still important to some extent (see Tseloni and Pease 2003), is unlikely to be *the* major contributing factor to instances of repeat victimisation. Research by Wittebrood and Nieuwbeerta (2000) and Osborn et al., (1996) supports this finding. In an investigation of the Double Hurdle model, Osborn et al., (1996) found that having taken into account the individual and area risk factors associated with the first hurdle, no further or additionally significant risk factors could be identified for the second hurdle (no difference between multiple victims and victims generally). Although this at first may seem to be indicative of the 'boost' model, what it in fact suggests is that the likelihood of chronic victimisation is dependent upon the initial level of risk, which is inclusive of the general trend towards non-victimisation. That is, Osborn et al., (1996) found differing levels of repeat risk for the three categories of initial risk they examined. Individuals with an initially low level of risk had a higher probability that a repeat will occur compared to the initial risk. Those at a medium level of initial risk had a relatively constant chance of facing a repeat incident, while those in the highest category of initial risk had a diminishing risk of repetition over time (i.e. a trend towards immunity).

To summarise, this section in its entirety related to the first step in the process of victimisation represented in Figure 1.1; moving from non-victim to victim. As such, it covered a number of key theories which each suggest differing explanations for

victimisation, whether it be individual characteristics and routine activities, or social disorganisation and characteristics of neighbourhoods. We also saw how there is some debate around the similarity and/or differences in explanatory variables related to those who are only victimised once, and those who are repeatedly faced with crime. In the next section of this chapter, we move on to cover the literature surrounding the second step in the process of victimisation, the decision to either report/not a crime to the police, and some of the variables found to influence this decision.

## 2.4 Reporting Crime

The aim of this section is to discuss and describe some of the key literature regarding the reporting of crime to the police. As such, it will first describe why under-reporting is a problem, and then discuss what research suggests to be the most significant predictors of non-reporting thus providing the framework for the analysis to be carried out as part of this thesis.

A consistent finding in research on reporting behaviour is that as little as 40% of all crime comes to the attention of the police. It is notification by the victims and witnesses of criminal incidents that leads to action by the authorities as often as 75 to 80% of the time (Skogan, 1984). Without such notification by victims, few crimes would come to the attention of the police. It is perhaps for this reason that Hindelang and Gottfredson (1976) labelled the victim "the gatekeeper of the criminal justice system." In America, the National Crime Victim Survey (NCVS), which recorded some 26 million criminal victimizations in 2000, showed that less than half were reported to the police. In the UK, the British Crime Survey (BCS) provides a 10 year picture of crime reporting in England and Wales where reporting rates were as low as 31% in the first survey in 1982, peaked at 43% in 1992, and have since dropped again to 38% (Hoare, 2009). Results from the Scottish Crime and Justice Survey (SCJS) mirror those from England and Wales, with only two in five (38%) being reported to the police (McLeod et al., 2009). In the Netherlands, forty-three per cent of victimizations are reported to the police (Goudriaan et al., 2006). The 'dark figure' of unreported crime makes up nearly half of crimes overall, and may be much higher for some categories of crime.

Non-reporting is a serious problem in criminal justice for a number of reasons, for the victim as well as the system. Victim support schemes almost exclusively rely on the police to identify and refer victims in need to these schemes, and those whose experiences go unreported may be cut off from assistance and support, as well as compensation. Non-reporting also serves to protect certain classes of perpetrators, including those who abuse relatives and family members who are reluctant to involve the police. Furthermore, from a policy perspective, police resources may be misallocated if crime reporting varies a great deal from place to place, or if selected offenses are systematically safeguarded from official view. There is also the potential that neighbourhoods who do not report the crimes they have experienced will be disadvantaged in not receiving their share of crime prevention or crime control expenditure. By shielding offenders from police view, non-reporting limits the capacity of the CJS to deter (Skogan, 1984). Victims' propensity to report crime is a key determinant in shaping the statistics recorded by the police and also in providing a broader understanding of how crime impacts on different individuals, communities and neighbourhood (Tarling and Morris, 2010). For these reasons, there is an ever growing literature investigating the reasons behind victims' willingness to report.

Research based on large scale victimization surveys tends to suggest similar factors influencing victims' decisions such as the perceived seriousness of the offence, the victims' relationship to the offender, and the value of items lost or damaged. This has led to the proliferation of theories suggesting the use of a cost-benefit calculation; a cognitive tool which victims use to weigh the potential pros (return of lost items) and cons (time) of reporting to the police (Bowles et al., 2009 and Cohen, 2005). On the other hand, social psychological research using interviews with community samples of victims and students in laboratory settings has led to the development of a theoretical model in which the victim's decision process is construed as consisting of three stages: labelling the event, determining its seriousness, and deciding what to do (Greenberg and Ruback, 1992). Furthermore, these theories do not rely solely on a 'cold' and calculated method of backward induction, but take into account the importance of victims' emotional reactions following an incident, as well as the social influence of close others (Greenberg and Beach, 2004).

Possibly the most researched area of reporting behaviour is that of the seriousness of the crime. Early research by Skogan (1984, 1994) utilized data collected in the BCS about victims' perceptions of seriousness. The BCS is well suited for this purpose in that it asks respondents to rate on a 20 point scale how serious they believed the incident they experienced to be. On the scale 1 is represented by the theft of milk bottles from outside a dwelling, while 20 is murder. Each increment on the scale increased the odds of reporting by 13%. On average, crimes reported in the survey rate 5.8, Skogan warns however that such ratings cannot always be translated into reporting rates. For example wounding is rated as 9.3 and reported 48% of the time, bicycle theft is rated as 5.4, and reported 69% of the time. Also, the small number of sexual offences was consistently given high seriousness ratings (11), but only reported 18% of the time. Seriousness had eight times the impact of attitude (Skogan, 1994). Other variables related to the seriousness of a crime include the presence of a weapon and whether the offence resulted in an injury to the victim. These also affected the decision to report markedly, a weapon by just over 50 per cent and injury by 87 per cent (Skogan, 1994). However, if the victim or someone else other than the offender felt in part responsible for the crime, the chances of reporting were reduced by nearly half (Tarling and Morris, 2006). Other things being equal, one might expect more serious crimes to be reported. A public sense of duty, the need to protect the public and see justice done are heightened in more serious cases, while the thought of wasting police time is mitigated and the personal opportunity costs to the individual assume less importance.

More recent research also suggests that victims are just as likely to report crimes committed by offenders well known to them as crimes committed by strangers (Tarling and Morris, 2010.) This finding reflects the complex nature of the relationship between victim and offender in reporting. The relationship between victim and offender permeated almost every aspect of crime reporting. The BCS documents a long standing supposition that crimes among those who know each other, or perhaps love each other, are less likely to be brought to the attention of the police. Crimes involving related persons, as opposed to crimes involving casual acquaintances or strangers, are thus less likely to be reported; the reason that it had been a private, family matter was given by 55% of victims of related party crimes (Skogan, 1994). The interplay of costs and benefits becomes yet more complex if the victim has contact with the offender, especially if the victim and offender are known to each other

and have a close relationship. Reporting the crime may be necessary to secure protection within an intimate relationship, but reporting will have a direct bearing on that relationship in the future (Tarling and Morris, 2010). Support for Skogan's findings is given by Gartner and Macmillan (1995), who found from analyzing data from the 1993 Canadian Violence Against Women Survey that all types of violence against women are under-reported but that violence committed by persons intimately related to the woman victim is least likely to be reported. However, later research challenges these findings. Hart and Rennison (2003), Baumer (2002) and Felson et al., (1999) all found no difference in reporting rates in violence cases when the offence was committed by a person known to the victim or when committed by a stranger. Felson et al., (2002) explored the victim-offender relationship in more detail in a later study of domestic violence, drawing on data from the US National Crime Victimization Survey. They examined the reasons victims gave for reporting or not reporting and found 'that three factors inhibit victims from calling the police on partners and family members (versus strangers): the desire for privacy, the desire to protect the offender, and, for partners, the fear of reprisals.'

Women and older victims have been found to be more likely to report crime but there is no consistent evidence regarding reporting rates for different ethnic groups. A constellation of variables reflecting socio-economic status have been found to be important in that respondents from families with higher household income, owner occupiers, those living in least disadvantaged neighbourhoods and the employed are more likely to report crimes, as are those who have attained higher educational qualifications (Baumer, 2002; Carcach, 1997). Repeat victimization appears to neutralize the impact of the next crime, in that people who suffered several incidents were less likely to report the last one. Respondents who hold positive attitudes towards the police are also more likely to report their victimization.

In their paper Bowles et al., (2006) build on the above research; specifically that which focuses on the costs accrued as the result of victimisation, to develop further a theoretical proposition regarding the decision to report. The paper develops a model of crime reporting based on an economic approach which identifies the principal costs and benefits of reporting from the victim's perspective, taking account of insurance provision and the risk

of intimidation by an offender. There are private and social costs and benefits to the citizen associated with the reporting decision. Costs may include time and effort spent in court, threats of reprisal by the offender, and shame or being blamed for the incident. However, in opposition to these costs, there may also be both 'intrinsic' and 'extrinsic' benefits. An example of an intrinsic benefit is a neighbourhood or 'solidarity' effect resulting from altruistic motives encouraging victims to report offences. Bowles et al., then go so far as to describe the decision making process as a 'decision calculus' and provide an equation for the calculation. Where the total loss is represented by X, the victim's wage rate (meant to reflect income) as w, and the length of time they believe reporting the offence will tie up now and later is denoted as t, and the perceived probability of the police recovering the lost items as p. Therefore, a crime will only be reported if  $pX > wt$ , or if the probability of the police recovering the total loss is greater than the time and lost wages associated with reporting (Bowles et al., 2009).

This so called 'cold' decision making process has received a fair amount of criticism for its over reliance on a victim's ability to make rational decisions in an emotionally laden context, as well as for using current reports of past judgements. Greenberg et al., (1979) also point out that this model may be appropriate for studying bystander or witness decision-making, but appears less well suited for studying victim decision making due to the stronger affective component. Greenberg and Beach (2004) build on this cost benefit model, with the addition of affective and social branches of influence in their model. They go on to outline three general processes underlying the decision of victims to notify the police: one that is cognitively driven by reward/cost considerations, one that is affectively driven, and another that is socially driven (Greenberg and Beach, 2004). They base this theory on previous evidence that emotional trauma experienced as a result of victimization might influence victims' attention, perceptions, thoughts, judgments, interpretations and processing strategies (Keinan, 1987; Niedenthal, Setterlund, and Jones, 1994; Petty, Cacioppo, and Kasmer, 1988; Forgas, 2001; cited in Greenberg and Beach, 2004). The socially driven aspect of reporting draws on research showing that a substantial number of victims consult with others such as family, friends, and bystanders when deciding whether or not to notify the police (Spelman and Brown, 1981; Van Kirk, 1978). The fact that victims would turn to others for advice and assistance is consistent with social psychological



research showing that when individuals are anxious or confused they are likely to turn to others (Asch, 1952; Festinger, 1954; Schachter, 1959). In their study of a community sample of crime victims in Pittsburgh, Greenberg and Beach found strong support for their model in that victims who were advised to call the police were over 12 times more likely to report the crimes than those who either did not receive advice or who were advised not to call the police.

#### 2.4.1. Weaknesses in the Reporting Research

Despite the advances made in this particular body of research on reporting, the above mentioned studies (based on victim surveys) have one major unifying flaw: the use of hierarchical data without hierarchical data analysis. Data collected in Victim Surveys is inherently structured at different levels, one nested within the next. This is due to the fact that one victim may experience numerous incidents of victimisation, as is often the case, and that victims are then grouped within neighbourhoods, communities or other geographical areas. The implications of ignoring this structure leads to the general theoretical problem of cross-level misspecification: that is, the danger of misinterpreting effects measured at one level as representing explanations operating at another level, and vice versa, and thus committing errors of inference. Each source of variation, whether attributed to micro-level or macro-level sources constitutes a threat to the validity of explanation couched at the other level (Hope, 2009). This problem will be covered in more detail in the Design chapter.

The first studies to take into account this nested data structure in the investigation of reporting appeared as recently as 2006. Goudriaan and Nieuwbeetra (2006) hypothesized that three neighbourhood characteristics play a central role in reporting: social cohesion, confidence in police effectiveness, and socio-economic disadvantage. These studies work from the assumption that there is less social cohesion in more urbanized areas and therefore a greater probability that victims will report. They build on early research by Black (1976) whose most important proposition, known as the Stratification Hypothesis, is that a neighbourhood's socio-economic disadvantage affects the extent to which use is made

of the law. With respect to reporting, Goudriaan and Nieuwbeetra thus hypothesized that the greater the socio-economic disadvantage in a neighbourhood, the lower the probability that crime victims who live there report to the police. Findings from their research supported their hypotheses that the stronger the social cohesion in a neighbourhood, the higher the probability that crimes are reported while greater socio-economic disadvantage in a neighbourhood is conversely related to a smaller probability that crime victims report crimes to the police.

Another paper by Tarling and Morris (2010) has used BCS data in a multi-level investigation of reporting. They found, like most previous research, that the seriousness of the offence, however measured, is the most important factor influencing a victim's decisions to report crime. Victims also reported crime for other instrumental or practical reasons, notably in order to make an insurance claim for stolen or damaged property, to cancel a credit card or prevent use of a mobile phone. Although these two papers may employ multi-level methodologies, neither considers the entire nested structure of the data. Goudriaan and Nieuwbeetra had only two levels, with incidents and individual factors both at the first level, nested within neighbourhoods. Tarling and Morris considered incidents within individuals, but not individuals within neighbourhoods.

In summary, this section and the previous have together addressed the second step in the process of victimisation, the reporting of crime to the police. The importance to the criminal justice system of non-reporting was discussed, as were key findings to date regarding factors influencing victim's decisions. Finally, a small number of studies were covered that have employed multi-level modelling in their research, the purpose of which is to highlight the shortcomings still apparent in the reporting literature, weaknesses that will be addressed in the investigation of reporting conducted as part of this thesis.

In the next and final section of this chapter the two final steps in the process of victimisation outlined in Chapter one will be addressed, the use or non-use of available victim services, as well as the helpfulness or satisfaction with services received. In order to do so, I will first discuss the difficulties inherent in assessing service use and satisfaction, before moving on to discuss the literature surrounding both the use of and non-use of services, before finally discussing the perceived satisfaction and effectiveness of support services.

## 2.5 Use of and Satisfaction with Victim Services

Little is known about how frequently victims of crime seek professional help, what factors determine who does or does not seek such help, and what impact on recovery mental health services may be expected to have. As Simms et al., (2006) suggest: there is a reciprocal relationship between reporting and receiving services, police and courts cannot perform the referral to services if they are unaware of the victim.

Once a victim has reported a crime, they should in theory be made aware of any of the numerous services and organizations that are available to help overcome the numerous difficulties associated with victimisation. At the present time, a plethora of programming now exists for victims of crime, including victim compensation programs, victim-witness programs, individual and group counselling, shelters for victims of domestic violence and their children, rape crisis counselling, and job training and placement services, to name but a few (Simms et al., 2006). Sadly, the fact remains that few victims make use of victim support services, an issue only recently tackled by researchers for reasons which will be discussed further below. In the following sections, I will review the difficulties inherent in researching service use and effectiveness, followed by a review of the relevant findings about use and non-use, which will in turn be followed by a review of the service evaluation literature.

### 2.5.1 Difficulties in Assessing Service Use and Satisfaction

Despite the ongoing pressure for evidence backed policy there remains pitiful few studies examining the usefulness and effectiveness of victims support programs and services. This is unfortunate, for as Mawby (2007) puts it 'both the consumers and proprietors of victim support services have a right to know the extent of their effectiveness'. Besides a few notable exceptions, there has been very limited research in this area, and there is little conclusive evidence to answer questions about which victims are using the services available and whether or not they are finding them useful. Furthermore, many victims do not wish to speak about their ordeal, others may have moved away and become unreachable, and there is always the issue of representing those victims who do not use services, let alone those who do not report their crimes to the police.

Who in fact may qualify as a victim is another area of uncertainty. Legislative definitions are crucial in that they serve as the deciding factor as to who is eligible for services and rights offered by the state. Trulson (2005) suggests there is a resultant risk of 'pigeonholing' victims in a way where some are deemed more important than others for purposes of eligibility for rights and services, which in turn may lead to the exclusion of some crime victims and secondary victimisation of the excluded. This is of course related to the notion of the 'ideal' victim, first described by Christie in 1986 as 'a person or category of individuals who, when hit by crime, are most readily given the complete and legitimate status of being a victim, including those who are perceived as vulnerable, defenceless, innocent, and worthy of sympathy and compassion.' That is, a victim who will not be judged to have precipitated the crime against them in any way, therefore they must be perceived as vulnerable and weak, to have been engaged in respectable activity when the crime occurred, in a place where they would not be placing themselves at any known risk, and where the offender was 'evil' and a stranger to the victim. Obviously this in reality describes very few victims, and as a concept, has the unfortunate consequence of suggesting that some victims are more valuable or worthy than others, particularly if the victim is seen as having less than salubrious past. In some cases, particularly in the US, victims who may be excluded from compensation and services if they participated in a criminal act (called contributory misconduct) or where the victimisation is attributed to the spouse, relative or sexual partner for fears that the offender may benefit unjustly (Trulson, 2005). Still others may become ineligible if prosecutors determine that the incident did not result in harm. Offenders are routinely excluded from services, despite the fact that they are often victims themselves (see Smith, 2009). In particular, Alaska will not offer support to anyone who has been convicted of 'any crime' or charged with 'any crime'.

Here in the United Kingdom there has been considerable debate surrounding the provision of compensation to victims, especially since the advent of the Criminal Injuries Compensation Authority (CICA) in 1964 (see Ashworth, 1986; Duff, 1989). According to CICA, its purpose to provide compensation to 'persons who have sustained a criminal injury', defined as physical injury (including fatal injury), mental injury and disease (CICA, 2008). Theoretically speaking, the purpose of state compensation schemes is not only to deny that the principal responsibility of compensation lies with the offender, or to right the wrong against society, but to address three practical points: the serious effects of some

crimes, the limited financial resources of many offenders, and the fact that some offenders are not caught, which together result in the significant unlikelihood of compensation without state intervention (Ashworth, 1986).

State funded compensation in Britain is however also limited to those sustaining criminal injuries, and compensation is not payable for mental injury or disease without physical injury. CICA also does not provide compensation to victims of violent crime whom it determines to be ineligible for any of the following reasons:

- behaviour before, during or after the incident in which you were injured
- possession of a criminal record
- failure to co-operate with the police, or with CICA
- delay in informing the police, or other organisation, or person of the incident.<sup>3</sup>

This distinguishing between innocent and undeserving victims treads a fine line between responsibility and victim blaming and may encourage the insinuation that the victim somehow contributed to their victimisation. According to Duff (1998, p. 106) 'the fundamental problem is that it is impossible to find any rationale which satisfactorily justifies singling out the victims of violent crime from other groups of unfortunates for special treatment by the state.' Trulson (2005) on the other hand sees it as whether an active offender, or not so innocent victim, may also be considered an innocent victim at some point or if this label is permanently lost with past or current behaviour not directly linked to the current victimisation.

Further issues result from the simple difficulty of defining the concepts of 'need' and the equivalence in meaning of commonly used measures of assessment such as 'satisfaction' with effectiveness. What is meant by effectiveness? Organisations that support victims may be tempted to see effectiveness in terms of satisfaction with support, whereas Dunn (2007) suggests that measurement and the extent to which services meet the bottom line of helping people cope with crime may be a more valid indicator for some, while others, such as governmental funding bodies, would want services to be effective in contributing to public

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<sup>3</sup> [http://www.direct.gov.uk/en/CrimeJusticeAndTheLaw/VictimsOfCrime/DG\\_177421](http://www.direct.gov.uk/en/CrimeJusticeAndTheLaw/VictimsOfCrime/DG_177421)

confidence in the criminal justice system and bringing more offenders to justice by supporting victims and witnesses throughout the criminal justice process (Dunn, 2007).

Need, on the other hand is very difficult to assess from a research perspective, particularly when many victims do not get access to services, such as victims of corporate crime and victims who do not report. Still others may overstate their needs, some may not be able to articulate their needs, and others may have some symptoms that do not appear until substantial time has passed. Newburn (1993) suggests also that the concept of victim need is highly problematic due to the subjective nature of the term, as well as the problem of distinguishing between the need of the victim and the needs of the criminal justice system. Thus Dunn (2007) suggests it 'may be helpful to conceptualise need based on service needs, which should reflect a combination of what victims and witnesses want, what help they might expect to receive and enable them to get over the effects of the crime'.

When speaking of needs and services the discussion typically centres on a small number of areas; personal and/or emotional support usually in the form of counselling or crisis intervention, financial compensation, information regarding the progression of a case or other services, crime prevention and security, and involvement in decisions about what happens to the offender. Notably, this last area is mentioned less often by victims themselves, though the cause of the greatest debate and uneasiness on behalf of academics and practitioners alike (Simms et al., 2005). However, the next two subsections of this chapter will seek to clarify the often contrasting findings regarding the help seeking behaviour of victims and the effectiveness of differing interventions.

### 2.5.2 Non-Use of Services

One conclusion that most researchers seem to agree upon is the fact that very few victims make use of services available to them. For example, Knudten et al., (1976) reported that only a small number of victims ever sought assistance and Friedman et al., (1982) reported a similar finding: only 15% of their sample of victims had reported using any type of government service, with only 1% of those individuals saying they had used services provided by a local agency. In 1991, Maguire estimated that only 1% of victims come into contact with victim services although 10% are contacted by phone or letter (cited in Davis

et al., 1999). Furthermore, in an unpublished study (cited in Davis et al., 1999) carried out by New York Crime Victims Service Agency (CVSA), Davis and Henley (1990) found that only between 2 and 10% of victims who had been notified (either by letter or phone call) about available services ever used them. Fugate et al., (cited in Simms et al., 2006) found, in a study assessing why victims of domestic violence did not use victim services, that 82% of victims did not seek services. The most common explanations found for not using services was a belief that talking about their victimization would not do them much good, not knowing that services existed, and turning instead to family or friends.

In a similar study Davis et al., (1999) found the most common reasons for not using services to be: victims could solve their own problems (80%), they did not need any help (70%), they had already received help from someone else (50%), or they did not have time to go to the program (25%). In this study, Davis et al., also supported another increasingly common finding, suggesting one reason why services may be underutilized is that victims are unaware that help is available, with 52% of their sample stating that they had never heard of their local victim support program. In this case as well as in one other study, which found, after interviewing 826 victims, that most did not get help as a result of not knowing it existed (Deorner et al., 1976).

As far back as the 1970's, Knudten (1976) concluded that the most likely reason for under utilization of services is that most victims simply do not know services exist. This finding is still common; in a comparative study by Mawby et al., (1999) the authors found that in Poland, when asked if they knew about any agencies providing services to victims, only six respondents mentioned the Polish Foundation for Assisting Victims of Crime and overall, only 8% had heard of any such agency, whilst in Hungary, only 13% overall had heard of some type of support agency.

Another study of service use conducted in America by Norris (1990) suggested that about 1 in 8 victims of crime may be expected to seek professional assistance within the first few months of the incident, an estimate which expands to 1 in 6 victims when the entire year following the incident is considered. The authors of this study also suggested that service providers may be unable to handle more serious problems associated with victimisation which are typically financial, and that victims may not get involved in the CJS because they fear it may add to their financial strain. Victims may also be unaware of the type of services

available, where at one extreme, nearly two-thirds of the victims knew help was available for the problem of physical injury whilst on the other hand, none of the victims knew of any help when the problem was insurance cancellation (Doerner et al., 1976). Thus, victims generally seem unaware of any source of help for their problems. The proportion of victims who do receive help for their problems shows a similar range and pattern, that is, utilization of help sources closely parallels knowledge of their existence and victims who know services exist are more likely to take advantage of them.

The failure of service providers to reach out to victims and the failure of victims to accept outreach, leads to low rates of service application. Fairly little is still known about why victims fail to employ available programs, with the expectation being that providers who attempt to recruit victims by letter or phone would have a higher rate of uptake, but the research mentioned above by Davis and Henley (1990) shows that even those providers who make such efforts still have dismal rates of uptake. Mawby et al., (1999) conclude that services that are not readily and equally available cannot be said to be effective in meeting victims' service needs, however, they also point out that this low uptake would not be an issue if it could be shown that services were actually reaching those most in need, and there is some indication that this is in fact the case.

### 2.5.3 Service Use

The extant literature still provides some useful insights into the experiences of victims following crime. In America a number of studies (albeit few recent ones) have explored the differences between victims who use services and those who do not. Due to individual differences in coping and resources, logic would have it that victims of similar crimes may have differing reactions to it, and may have very diverse needs. Reactions to crime may be affected by a range of social factors such as gender, race, culture, sexuality, class, disability, poverty, age and health (Dunn, 2007). Other factors are also slowly coming to light in predicting which victims are more likely to use services. For example, a study by Golding et al., (1988) found that prevalence of use may be somewhat higher (9-18%) among victims of quite severe crimes such as sexual assault. The authors elaborate further, suggesting that 'use of services by victims is mediated primarily by distress.' A finding that is consistent with previous indications that distress (i.e. depression, demoralization) is usually what



motivates persons to seek professional psychological help. Another common finding is that victims with the fewest informal and social avenues of support will be the most likely to seek out services, and in particular mental health services (Steinmetz, 1984 cited in Norris 1990). Professional service providers and clinicians may be seen as the only remaining option when other sources of help have been unfruitful. Alternatively, it may be that victims are encouraged to seek help and advice from caring social networks. This is a theory supported by work mentioned in the reporting literature, in a model of victim decision making proposed by Ruback, Greenberg, and Westcott (1984) which suggests that crime victims' decisions are susceptible to social influence such as guidance and advice from friends and family when labelling the incident as a crime, and subsequently determining its seriousness and finally deciding what to do. It is a logical step to assume also that an individual's social network will not only affect their decision to report, but also their decision to use services.

Norris et al., (1990) conducted a longitudinal study of crime victim's use and non-use of services, considering a number of factors including social support, psychological resources, and locus of control. Results showed that in comparison to non-victims, crime victims were disproportionately urban dwellers, professional, and never married. They also had more education, were younger, and had received higher levels of social support. Furthermore, crime victims reported having been victimized more often in the past and were more likely to be victimized in the future. When seeking support after an incident, victims mentioned the police as the most frequently encountered professionals (67%, victims of property and violent crimes combined) with mental health professionals being contacted less often (12%) than lawyers (18%), as often as clergy (12%), and more often than medical doctors (8%). The authors suggest their most notable finding was however that victims of violent crimes were more likely to have contact with professionals than were victims of property crimes. Use of mental health services was most prevalent among victims of violence who lived in urban areas, who received high support from their informal social networks, who manifested an internal locus of control orientation, or who had been victimized previously. This is a similar finding to that reported by Simms et al., (2005) who also found that victims of violence, women, non-whites, those earning less than less than 30k (\$), receiving government assistance or not working full time were more likely to use services. One explanation for this common finding may be that police are more likely to ensure that

victims of violence are made aware of available services, or that services are designed specifically with this type of victim in mind.

Davis et al., (1999) suggest that those who are using services are the victims who do not have access to resources elsewhere and that victims who did use services seemed to be negatively impacted by other social problems including unemployment and poor health, a claim supported by Friedman et al., (1982), as they found service users tended to be concentrated in lower SES groups.

Furthermore, an interesting finding in the Norris (1990) study was that the greater the receipt of informal support the more likely victims of crime were to seek help from mental health professionals. This finding may reflect a general tendency of some people to mobilize help from all available sources. That is, those who seek help from formal sources also seek it from informal sources. This is in direct contrast to the above mentioned research (Simms, 2006) which found that non-use of services was more related to the availability of alternative avenues of support; another example of contrasting evidence in this area. One other surprise in the Norris study was the relative lack of importance of socio-demographic factors in predicting the use of services. The only exception to this was a significant interaction between violence and urbanicity, suggesting that victims of violence residing in urban areas may have greater access to services, a finding again in contrast to the above mentioned studies, where socio-demographic factors were found to be significant predictors of service use.

Therefore, although the available research into the use and non-use of services helps substantially in the identification of variable for testing in the current research, the research lacks integration and is often contradictory. Thus it is hoped that the current study will help to clarify some of the issues here, as well as in the area of victim satisfaction with services.

#### 2.5.4 Satisfaction and Effectiveness

In 1984 the American Psychological Association's Task Force on the Victims of Crime and Violence issued its final report, concluding that 'little is known about the effectiveness of services currently being offered to victims', but that 'both those that seek help and those

that pay for services deserve interventions for which the efficacy is known or is under systematic study' (cited in Davis, 1987:100).

One such systematic review, The Denver Victim Services Assessment was conducted in 2000 to determine the needs of victims and to understand how well those needs were being met (US department of Justice, 2000; cited in Simms, 2005). The survey asked questions about the types of services received, satisfaction with those services and types of services desired that were not received. Findings suggested that victims were happy with the services they received and that services were easily accessible. However, reported unmet needs included crisis intervention and victim assistance at the crime scene, victim's rights information, protection services, and updates on the status of cases.

Skogan et al., (1990) conducted a survey of users and non-users of victim services (240 each) who were interviewed by telephone and found three primary needs: someone to talk to about feelings, information about how to avoid repeat victimisation and how to protect oneself from offenders; and practical help as in repairing broken doors and locks. The authors concluded that most people get the help they need from non formal services, though individuals who did get services reported being satisfied. Davis et al., (1990) on the other hand found victim services had no impact on feelings of involvement or no greater feelings of satisfaction in users. However, similar to Skogan, Maguire (1985), in a review of existing literature on victim's needs, suggested the same three key areas:

- a) information: progress of investigation, info about crime prevention and compensation
- b) practical help: short term financial support, lock-fitting, claiming insurance, and
- c) emotional support (cited in Dunn, 2007).

Drawing on such findings, Shapland (1986) suggests that the main priorities of victim-centred assistance schemes should be providing immediate payment for loss of earnings and expenses incurred as a result of the crime, providing a system for practical help and emotional support, and involve the increased use of compensation by the courts.

A number of support providers, including Victim Support, now conduct their own user satisfaction surveys in addition to questions in both the SCJS and BCS asking respondents to indicate how satisfied they were with any services they received. Both sources tend to

report extremely high levels of satisfaction. For example, in the Victim Support survey which has been operational since 2004, the majority of respondents (82%) were satisfied with the first contact made by VS, although those contacted by telephone were happier than those contacted by post and the 2008/9 SCJS (Page et al., 2009) found that in 72% of crimes where support and advice was provided by Victim Support Scotland (VSS), victims reported satisfaction.

Other findings from Victim Support suggest that victims of violent crime or burglary are more likely to have had emotional support than victims of other property crimes. Almost half (47%) said that the feeling of being understood was the best way of describing the effect of receiving emotional support, whilst 35% felt reassured, 32% less anxious, 23% felt an increase in confidence, and 21% were less angry (Petersson, 2009). Being listened to, and having a neutral supporter were also found to be important to victims, though some wanted Victim Support to be more proactive in offering future support. Finally, 91% of respondents were satisfied with emotional support, though they were less satisfied with practical help and information.

Dunn (2007) is however quick to point out a number of shortcomings of such surveys as carried out by service providers. First off, people who are satisfied may be more inclined to complete the survey. Secondly, harking back to the satisfaction/effectiveness debate, the surveys are not a complete indicator of effectiveness as they do not follow people over the long term, and finally, it is of course unable to inquire of victims who were unable to obtain services because they were not referred. That being said, the difficulty in gaining user feedback about the services they have received is also acknowledged, and is likely the result of limited resources to undertake complex evaluations, although the imperative to help victims move on may also have a deterrent effect of getting victims to talk after receiving services. Furthermore, answering questionnaires may be re-traumatising, whilst there is also the fear that service providers might not have the skills or resources to provide what people really want (Dunn, 2007).

The worry about re-traumatising is especially relevant concerning victims of violence, who do tend to use services more often, particularly mental health services; they were however less frequently satisfied with them. Only about one fourth of violent crime victims described the services they received as very helpful, compared with one half of property crime victims

(Norris, 1990). Again, in their study Maguire and Corbett (1987) interviewed 156 victims of assault, burglary and theft who had been visited by Victim Support volunteers, they found that only 12% of the sample felt that it had made a substantial difference to the way in which they coped with the 'emotional aftermath', although some 2/3 did report they felt the support has made at least some difference. There were however no significant difference in the demographics of victims who were satisfied with support and those who were not. In addition, the group of victims who had received support seemed to have recovered better than a group who did not; they appreciated the outreach, as it had been demonstrated by this point that victims do not usually seek or ask for help of their own accord (Dunn, 2007) These authors thus suggested that the offer of help was valuable in and of itself because it demonstrated that someone cared.

In contrast to the work of Victim Support and others who sought to measure satisfaction, Marandos (2005) reviewed 20 studies that attempted to measure the effectiveness of programmes designed to help victims recover from their experiences; outcomes included measures of PTSD and depression. Marandos concluded that 'while crisis intervention services may be beneficial for victims who demonstrate high levels of psychological distress', that this group of studies did not confirm the effectiveness of short term interventions overall. This is an important finding, as most victim services employ what is commonly referred to as the crisis intervention model; a brief therapeutic technique designed to aid persons who normally function successfully, but who are experiencing temporary adjustment problems because of a well-defined stressful event (Davis, 1987). Crisis counsellors seek to determine the seriousness of the victimizing incident, assess what coping resources an individual possesses, and develop and carry out an intervention plan (Aguilera, 1978). This technique is widely applied, but little data exists on its effectiveness in helping victims to recover. As such, Davis (1987) examined the effects of three post crime treatments (plus control) on victims of a variety of crime (39% burglary, 34% robbery, 24% assault, 2% rape). The three types of intervention included crisis intervention with supportive counselling, crisis intervention with cognitive restructuring, and material assistance only (financial help, new locks etc) and the control group which received no help. To clarify, cognitive restructuring is a technique similar to cognitive behavioural therapy (CBT) which aims to uncover and challenge irrational beliefs about the world, one's self and others that are assumed to give rise to adjustment problems. Once identified, irrational

thoughts can be challenged, and once overcome the irrational behaviours will also be cured. Participants in the study were randomly assigned into one of four groups and completed interviews prior to treatment as well as one three months post crime. Results showed that among all victims, crime related symptoms dropped from 73% at initial interview, to 22% at follow up interview; however, no differences were found between the groups who received support and those who did not. These results were also replicated when analysis was limited to those with the most severe symptoms at the pre-test. The authors suggest that this surprising finding was likely due to the fact that most participants only received one session of counselling but notes they were given the opportunity to return for more sessions, but most did not. Again interesting to note, is how victims in this study also believed that they had benefitted from the crisis intervention sessions, with 89% finding the sessions 'helpful', with the proportion rating services as helpful significantly higher in those who received cognitive restructuring. Davis concludes that counselling is by no means useless, but that effects were likely non significant due to the difficulties of measuring effectiveness, and the fact that single sessions produce only weak effect and were likely swamped by the healing effect of time.

Drawing on the above body of work, a number of conclusions can be made about the current state of service provision to victims of crime. First of all, in relation to the findings surrounding the social influence of close others on victim decision making, Norris (1990) suggests that it may be most effective to direct outreach efforts at those who have social influence on victims rather than limiting those efforts to victims themselves. Furthermore, by taking into consideration the fact that many of the above studies found evidence suggesting lack of knowledge about services led to low rates of use, a greater emphasis on educating the public about services available, adequately staffing programs with better trained individuals and broadening the types of services available to victims, are key recommendations made by Simms (2005). Finally, crisis intervention is also potentially an important mechanism for increasing victims' awareness of community resources. For example, although Friedman et al., (1982) recognise that the problems experienced by victims may simply be 'too profound, enduring, or variable in onset to be prevented by simple one shot counselling efforts,' they in turn suggest that crisis intervention may play its most valuable role not as a solution or cure, but as a link between the victim and ongoing support services in the community.

Much like the discussion of 'what works' for offenders and treatment programming in corrections, perhaps service providers might benefit from a 'what works' credo for victim support as well. Stohr (2005) makes a number of recommendations based on the correctional treatment literature including identifying the multiple needs of victims: focusing services on those who need them most, considering the programs to fit the most pressing of those needs; attracting, training, hiring, and maintaining skilled and knowledgeable staff, including cognitive and behavioural elements to the service, staff and client modelling of survival behaviour, involving clients in their own case, and building in process and outcome evaluations.

## 2.6 Summary and Conclusions

This chapter has covered each and every step of the process of victimisation first outlined in the introduction. It has discussed key theories of victimisation risk, focusing on both individual and neighbourhood level characteristics. Factors affecting victim decision making in regards to the reporting of crime to the police have also been established, as were some of the difficulties in and around establishing explanations for the use and non-use of services. Beyond familiarizing the reader with the relevant research, this review has served to highlight those characteristics, of both individuals and neighbourhoods, which can and, where possible, will be tested in this thesis.

Theories of victimisation have centred on variables which are likely to increase or decrease the risk of victimisation without due consideration given to how these same factors may affect victims after an initial incident. That is, although it is likely that those individual, routine activity and community variables which influence an individual's risk of victimisation are also likely to affect whether a victim reports the crime to police, takes advantage of services available, and if so, finds said services valuable, little work has been carried out to investigate these links. Furthermore, the impact of a crime on a victim is also likely to be influenced by these factors, which in turn will again influence an individual's decision to uptake services. In other words, the theoretically relevant characteristics of a particular victim are likely related not only to initial levels of risk, but to the severity of impact.

Thus, it is hoped that this review of the literature has endowed the reader with a sense of the complexity and vastness of research with victims of crime. Very different theories are employed to explain not so different processes. The disjointed nature of the literature here reflects the overall state of the field, where there is little integration between research and theory on risk, reporting, service use and impact. One aim of this thesis is to provide just that, a link or a thread which runs throughout the entire process of victimisation, drawing together what are currently four distinct bodies of research. In so doing, it is possible to identify a number of research questions to guide this investigation. Drawing on the victimisation risk literature, one question worthy of further investigation is the respective significance of individual versus neighbourhood characteristics. Such a question lends itself easily to the study of hierarchically structured crime survey data, and will thus be addressed here. Secondly, as I am interested in the process of victimisation as a whole, and as there is a serious need for integration within the literature, the question arises regarding what links can be drawn across the different stages of victimisation. That is, are there relevant characteristics that have an impact on each stage? If so, what are they? The rest of this thesis will seek to answer these questions, beginning with the next chapter which will outline the research design used to this end.



## Chapter 3: Research Design

### Introduction:

This chapter will provide an outline of the research design employed in this thesis. It will be broken down into sections, each covering a specific aspect of the design. First of all, I will re-emphasize my broad area of interest and review the aims and objectives of the research. Based on the discussion of literature in the previous chapter, I will then return to the research questions put forward in the final section of the literature review, and expand on these in the development of three specific hypotheses to be tested in this thesis. Following this will be a discussion of the methods needed to achieve my goals and test the suggested hypotheses; including a discussion of the advantages of using a mixed methodological research design and why it was thought particularly useful given the current research questions. Next will be an introduction to the two types of data, quantitative and qualitative; including the 2008/2009 sweep of the Scottish Crime and Justice Survey, neighbourhood indicators drawn from Scottish Neighbourhood Statistics, as well as data drawn from a sample of qualitative interviews. A discussion of the predictor variables included in the research at each level of the quantitative data will also be presented in this section, including the rationale for the inclusion of the variables based on previous research. Finally I will conclude with a summary of what has been covered and how I intend to research the relationships between the concepts and variables already introduced in relation to the analytical framework for the application of certain theories.

### 3.1 Aims and Objectives

Prior to again discussing our aims and objectives, a review of the broad area of interest may be beneficial. Generally speaking, this thesis is specifically concerned with the impact of crime on victims. In it, I hope to develop a more comprehensive understanding of victimisation; to promote unity and integration of the literature, in the hope that better understanding may lead to a better experience for the victim of crime. This broad agenda of the research was outlined by both the Scottish Government and the Economic and Social Research Council in their call for the Case studentship from which this thesis arose. That being said, as the impact of crime on victims is far too large a topic to be

covered in a single piece of research, a number of subsidiary aims, and the objectives by which they will be achieved may be identified. The primary aim of this thesis is to go beyond what was previously described as the 'first hurdle' of victimisation research, and to explore the impact of crime on victims not just as a single and isolated incident, but as a process which carries the victim through a number of steps in the criminal justice system, each one related to and building on the last. Furthermore, this thesis aims to uncover the pattern behind the process; a link or a thread which runs throughout the entire process of victimisation, drawing together what are currently four distinct bodies of research. One final purpose is to consider the longer term impact of crime, specifically emotional and or psychological impact and the influence that it in turn has on decision making in the aftermath of the initial incident of victimisation.

These aims will be achieved first of all, by studying not just the initial incident of victimisation, but also the decision to report a crime to the police, the use or non use of available services, and the appraisal of support resources. By modelling each of these phases after identifying a set of theoretically derived individual and neighbourhood characteristics, and searching for similarities and differences in outcomes, the presence or absence of a core group of variables may be established. Secondly, the effect of emotion and psychological impact will be examined both in the series of quantitative models, but also in interviews with victims themselves.

### 3.2 Research Questions and Hypotheses

Building on the above aims and objectives it is possible to identify a number of research questions to guide this investigation. First of all, drawing on the victimisation risk literature, one question worthy of further investigation is the respective significance of individual versus neighbourhood characteristics, not just on the initial risk of victimisation, but on every step of the process. Such a question lends itself easily to the study of hierarchically structured crime survey data, and will thus be addressed here. Elaborating on the aim of integration throughout the process, the question arises as to whether or not it is possible to identify links across the different stages of victimisation. That is, are there relevant characteristics that have an impact on each stage? And If so, what are they?

In order to more directly answer these questions, three hypotheses will be considered:

*1. A pattern of key characteristics is expected to influence not only the initial risk of victimisation, but the decisions to report crime and make use of available services.*

Research covered in the previous chapter has accentuated commonly accepted risk factors for victimisation. A number of theories were addressed, each emphasizing a slightly different route; be that via individual characteristics such as gender, age, or previous victimisation or neighbourhood characteristics such as deprivation or a high rate of turnover. Furthermore, the research covering the behaviour of victims following a crime suggested that again individual characteristics such as gender and age are also likely to not only affect the decision to report a crime but also as to make use of available victim services (see Skogan, 1988; Friedman et al., 1982). Taken together, these findings begin to hint at a pattern of key influences acting throughout the ongoing process of victimisation.

*2. It is expected that a) multi-level models employing MCMC estimation will provide more reliable estimates than traditional regression techniques, and that b) between neighbourhood differences will account for a significant amount of variance.*

Modelling hierarchically structured data using simple binary regression methods will of course result in errors of inference and incorrect coefficients. Thus, the use of multi-level regression techniques, particularly those employing rigorous modes of estimation, will result in more reliable coefficient and variance estimates.

In addition, the characteristics of communities are often found to influence one's risk of victimisation, with some research also suggesting differences in reporting between different communities (Baumer 2002). For example, those living in the most deprived communities tend to be at the greatest risk of violent crime and also the least likely to report (Scottish Government, 2011). Thus it is anticipated that between communities, differences in victimisation, reporting, and service use will be reflected in the variance parameters.

*3. That emotional reactions to crime will play a significant role in the decision making and actions of victims.*

Previous research, specifically that of Greenberg and Ruback (1992) has demonstrated the importance of emotional reactions in victim decision making, specifically related to the reporting of an incident. In relation to service use, research suggests that victims experiencing the greatest amount of emotional distress were more likely to uptake

available services (Golding et al., 1988). It is thus a logical step to hypothesize also that an individual's social network will not only affect their decision to report, but also their decision to use services.

No previous research has used the measures of emotion in the SCJS to test such a hypothesis; possibly due to the fact that the measures provided may be considered slightly crude and to represent a serious over-simplification of a complex emotional state. That being said, a test of these variables is an adequate starting point still allowing for greater understanding of emotional impact. In addition, the qualitative interview data gathered for this thesis will be used to clarify and elaborate on results achieved through quantitative modelling.

### 3.3 Mixed Methodology and Data Triangulation

As mentioned previously, this thesis was funded by both the Scottish Government and the ESRC. The advert for the position clearly stated the candidate was to use SCJS data in a study of crime victims in Scotland. Thus, this thesis began life as an empirical, quantitative based piece of research. However, over the course of first year and into the second; it became apparent through my growing understanding of victimological research, discussions with a number of professionals in the field, and some rather insistent first year examiners, that in order to truly understand the experiences of victims, some form of qualitative work had to be employed in this research. Thus I decided, after a failed attempt to secure access to statements from the newly introduced victim statement scheme, to conduct a number of interviews with victims of crime themselves.

In order for this qualitative interviewing to be able to clarify and elaborate on the results of the quantitative modelling, a methodology which is able to combine and contrast findings from two different data sources was required. Simply put, I was in need of a mixed methodology. This type of research is characterized as that which contains elements of both qualitative and quantitative approaches. A slightly more elaborate definition by Cresswell (2003:20) summarises mixed methods research as 'employing strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problems. The data collection also involves gathering both numeric information as well as text information so that the final

database represents both quantitative and qualitative information.’ Maruna (2010) recently recognised that despite a notable absence of mixed methodological research in contemporary criminology, ‘all social researchers must deal with both words and quantities in some way’ but that due to the methodological paradigm struggles of the last three decades, and the lingering resultant prejudices, the idea of combining quantitative and qualitative work ‘has an aura of exotic or even forbidden amongst criminologists today.’ The paradigm struggle Maruna refers to is that between proponents of quantitative and qualitative research respectively. Where on the one hand, quantitative research is seen as synonymous with positivism and empiricism, qualitative methods have been associated with interpretism, constructivism, phenomenology, or symbolic interactionism. This either-or approach was responsible for the resistance to mixed approaches in the social sciences during the latter half of the twentieth century; Lundberg (1960:131) describes the division as ‘the deep-seated philosophical idea that observable events, which constitute the subject matter of all sciences, may be divided, by virtue of inherent differences, into two classes, namely, quantitative and qualitative; some "things" (events, data), it was implied, are inherently quantitative, others inherently qualitative.’

Quantitative analysis is, however, still described in terms of empiricism and positivism derived from the methods used in the physical sciences. This research approach is an objective, formal systematic process aimed at describing, statistically testing, and examining cause and effect relationships, whilst also controlling for extraneous influences (Duffy, 1985). The result is a transparent and replicable, precise, objective, and generalizable research methodology. In contrast, ‘qualitative researchers tend to be concerned with meaning... they are interested in how people make sense of the world and how they experience events... to be concerned with the quality and texture of experience, rather than with the identification of cause and effect relationships’ (Willig, 2009:9). The purpose of this type of research then is the production of detailed, comprehensive and contextualised data, which may produce a wealth of information from a relatively minute number of cases. As opposed to quantitative research which is often confirmatory; testing theory deductively from existing knowledge, through developing hypothesized relationships and proposed outcomes for study, qualitative research tends to be exploratory in nature, encouraging the exposure of novel social phenomena, whilst still producing theory that is grounded and testable.

By adopting the best aspects of both ideologies, I intended for the current research to maximise the benefits of a mixed-methodological design. By building qualitative methods into quantitative ones, it is possible to substantially increase the range of conclusions that can be produced by research designs. Where quantitative analysis offers greater internal validity for understanding factors related to victimisation risk, reporting and service use, qualitative methods offer greater insight into why the effects are produced (Sherman and Strang, 2004). This thesis recognises that victimisation is a complex process; one that is only just beginning if and when an incident is reported to the relevant authorities. It was therefore thought that to study such a complex process using only single-methods, single-observers, or a single theory would be to risk oversimplification and biased results. Instead, by combining multiple observers, theories, methods, and data this project would be able to ensure that any observed results are in fact attributable to the variable of interest rather than the method used (Denzin, 1989).

In their paper Rocco et al., (2003) outline five key advantages to employing a mixed methodology over the standard single method design, namely triangulation, complementarity, development, initiation, and expansion. Triangulation refers to the convergence or corroboration of the same phenomenon, thus increasing a study's validity. One example of how triangulation was achieved here is through the use of qualitative interviews as well as quantitative modelling to assess victims' satisfaction with any support services they had encountered. Additionally, I hoped that the data gained in interviews would elaborate on the emotional impact of crime, and its influence on decision making. Patton clearly describes the purpose of triangulation as *'to test for consistency rather than to achieve the same result using different data sources or inquiry approaches. Inconsistencies are seen as an opportunity for developing further insight into relationships between the methods chosen and the phenomenon studied, thus allowing researchers and the readers of their reports alike, to improve their understanding of that phenomenon'* (2002:20; cited in Rocco et al., 2003). Complementarity is, in essence, the elaboration, enhancement, or clarification of the results of one method through the use of another whilst development refers to the use of findings from one type of research to inform another. Initiation refers to the practice of seeking out contradictory findings that could help reframe the research question or model; and finally, expansion results from increasing the range and breadth of the research through the use of multiple methods.

In this research the qualitative component will serve to corroborate and complement the findings of the quantitative based modelling with victims by asking similar questions to those found in the survey, but gathering much more in-depth responses. For example, rather than an incident being categorised into a particular category of crime, and being reduced to a number of yes or no responses relating to the particulars of the incident, participants will be able to tell the story of the incident as they experienced it, highlighting what was important and meaningful to them. The inclusion of this qualitative component will thus also allow for the testing of convergence across methods and an increase in the study's validity and interpretability by, for example, seeing if victims in interview are as satisfied with support received as descriptive statistics from the survey suggest. Finally, the quantitative modelling will inform the development of the interview questionnaire, and results from the questionnaire may aid the practical as well as theoretical interpretation of quantitative results.

To summarise, thus far I have outlined the general nature of this research, suggested a number of research questions based on the literature covered in Chapter 2, put forth the aims and objectives of this thesis, and finally introduced the methods which will be used to achieve them. At this point then I will move on to describe in detail the different types of data used in this process.

### 3.4 Introducing the Data

A certain number of characteristics were required of the quantitative data to be employed in the testing of the three aforementioned hypotheses. Firstly, it had to include a spectrum of questions measuring a respondent's experience of victimisation, including not just an indicator of victim status, but also data surrounding the consequent experience of the criminal justice system. Secondly, it must include explanatory variables which offer a sound understanding of the characteristics of the respondents; not just in terms of demographics, but also in terms of their experience of crime and other attributes which may influence their risk of victimisation and subsequent behaviour. Furthermore, it must include geographic identifiers at a level corresponding to neighbourhood to allow a respondent's location within Scotland to be established and finally, once a respondent has been located within an area, the dataset should include indicators of the characteristics of that area such as the composition of the population and the socio-economic make-up of the area (Norris, 2009).

In order to satisfy these requirements, two different sources of quantitative data were used in this research, namely the 2008/9 sweep of the Scottish Crime and Justice Survey, and Scottish Neighbourhood Statistics. Together, this data was analyzed using MLwiN, a purpose built software package for fitting multi-level models developed by the Centre for Multilevel Modelling at the University of Bristol. The following section will provide a detailed description of each of these data sources, as well as the variables drawn from each. A discussion of the qualitative data employed will follow.

#### 3.4.1 The Scottish Crime and Justice Survey

Crime surveys have been carried out in Scotland since the early 1980's although the earliest versions of the survey conducted in 1982 and 1988 were subsumed under the British Crime Survey. In 1993, however, the first independent SCS was run in Scotland and was repeated in 1996, 2000, 2003 and 2006. Since its inception the survey has evolved through a number of forms and phases. Despite these changes to the design of the survey, the wording of the questions asked of victims regarding their experiences has been held fairly constant. Prior to the 2003 survey, interviews were conducted every three years with approximately 5000 participants using face to face interviews. However, in February of the same year, the Scottish Executive commissioned a review of the design, content and management of the survey. The findings of this review led to the re-launch of the survey as the larger Scottish Crime and Victimization Survey (SCVS) in June 2004. The SCVS represented a major shift in design, methodology and sample size from previous surveys as it was a continuous survey with an annual sample of 27,500 adults interviewed over the telephone rather than face-to-face (McVie et al., 2004:5). Be that as it may, after a calibration exercise and on the recommendation of the SCVS Technical Group, including independent peer review, it was decided that the robustness of data from the telephone survey could not be substantiated, and the survey was discontinued after one year (Brown and Bolling, 2006:9). Thus, the 2006 survey again took the format of a household survey of people's experiences and perceptions of crime, based on interviews with 4,989 adults age 16 and over throughout Scotland, carried out between June and December 2006 (Brown and Bolling, 2007: 1). The 2008/09 sweep of the survey has again seen some major changes such as the introduction of Computer Assisted Personal Interviewing (CAPI), as well as an increase in sample size to



approximately 16, 000 participants, a much larger survey now called the Scottish Crime and Justice Survey (SCJS).

The principle focus of the SCJS is to monitor the extent of victimisation in Scotland in the year prior by eliciting information from respondents regarding their experiences of personal and household victimization (Brown and Bolling, 2007). Like most crime surveys, estimates produced by the SCJS compliment the official police recorded crime statistics by estimating the extent of crime which is experienced regardless of whether they are reported to police or not. Beyond the measurement of crime, the SCJS also explores the experiences of victims, as well as public perceptions and attitudes towards crime, worry about and levels of crime, and agencies such as the police and Procurator Fiscal within the Scottish Criminal Justice System.

The SCJS 2008/09 used a random probability sampling method and was designed to be representative of the population of households in Scotland and adults aged 16 or over living in those households. However, compared to previous surveys, the 2008/9 sample was largely un-clustered, with clustering employed only in the more sparsely populated areas of rural Scotland. The sample was drawn from the Postcode Address File (PAF), described as 'the most comprehensive and reliable sample frame available in the UK for surveys of this kind' (Macleod, et al., 2009). Fieldwork commenced on the 1st April 2008 and was completed by the 31st of March 2009, with approximately 1,333 interviews being conducted each calendar month. Interviews were conducted face-to-face in the respondent's home and administered by purpose-trained professional interviewers using Computer Assisted Personal Interviewing (CAPI). Only one adult was interviewed per household; although, as many households contained more than one adult, details of all eligible adults were collected by the interviewer, of which one would be randomly selected for interview. This process of random selection was used to avoid any selection bias, and once a selection was made, no substitutions were permitted.

The SCJS questionnaire consists of three elements: the main questionnaire which is composed of a set of core modules asked of the entire sample, a victim form questionnaire which collects more detailed data about each incident experienced by a respondent, and a set of quarter-sample modules each containing questions on one or two specific topics, and finally a self-completion questionnaire covering sensitive issues such as domestic assault and sexual violence (Macleod et al., 2009). Though all respondents were asked to complete the self-completion questionnaire, they were

necessarily provided with the option to refuse this. The victim form is repeated for each incident if more than one is experienced, though the number of victim forms is capped at five per respondent. This restriction has been applied since the British Crime Survey (BCS) began in 1982 and the equivalent Scottish crime survey began in 1993. This capping is used to ensure that survey estimates are not affected by a very small number of respondents who report an extremely high number of incidents (Macleod, et al., 2009).

As well as providing a comprehensive data set covering many policy relevant aspects of victimisation, the SCJS provides the best possible estimate of the true number of crimes in Scotland. That is, it provides an estimate of the 'dark figure of crime' and an alternative measure of crime to offences recorded by the police; it also looks at levels of reporting and why crimes are not reported (Mayhew, 2007 and Walker, 2008). It thus offers the opportunity for comparison between crimes that are reported to the police, and those that are not; one aim of this thesis. Furthermore, it provides information and estimates of the risk of crime overall as well as for different population subgroups thereby allowing for comparison based on demographic indicators such as age and gender; another aim of the current project. Also, geographic identifiers contained in the survey enable linkage with other sources of data such as Scottish Neighbourhood Statistics (which will be discussed in depth below). For these reasons, on top of the fact that it was specified in the Case studentship funding, the SCJS was employed in this thesis.<sup>4</sup>

### 3.4.2 Linking Survey Data

The use of data collected in surveys such as the SCJS does however encounter one problem: the data collected is inherently structured at different levels, each one nested within the next. This is due to the fact that one victim may experience numerous incidents of victimisation, as is often the case, and that victims are then grouped within neighbourhoods, communities or other geographical areas. The implications of ignoring this structure leads to the general theoretical problem of cross-level misspecification as

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<sup>4</sup> Interested readers are referred to the SCJS 2008/9 User Guide (McVie et al., 2011) and the SCJS 2008/9 Technical Report (Page et al., 2009) for further information on sampling, weighting and questionnaire design.

first addressed by Kennedy and Forde (1990) and later Trickett et al., (1995). That is, the danger of misinterpreting effects measured at one level as representing explanations operating at another level, and vice versa, and thus committing errors of inference. Each source of variation, whether attributed to micro-level or macro-level sources, constitutes a threat to the validity of explanation couched at the other level (Hope, 2009).

Of specific concern is the atomistic fallacy, also referred to as the individualistic fallacy, which results when faulty inferences for macro-level group relationships are drawn using micro-level individual data. That is, associations between two variables at the individual level may differ from associations for analogous variables at a higher level of aggregation, so aggregate relationships cannot be reliably inferred from individual data (Johnson, 2010). One prime example of research where this fallacy is of concern is the oft cited paper by Sampson and Wooldredge (1987). In this study of the micro and macro dimensions of Lifestyle-Routine Activity as they relate to victimisation, the authors correctly highlight the need for research which incorporates both individual and community level contextual variables. For example, one hypothesis posed by Sampson and Wooldredge refers to the greater likelihood of victimisation in communities with high proportions of single adult households. Although theoretically sound, as this prediction refers to neighbourhoods as the unit of analysis, one would risk a serious inferential error testing this group-level hypothesis with data aggregated up from the individual level as it was in this paper. That is, testing this theory by examining whether or not individuals who live alone have higher rates of victimisation is faulty, as this reflects the fact that variables aggregated up from individual level data often have unique and independent contextual effects; living alone represents a different casual pathway than living in a neighbourhood with high rates of single adult households (Johnson, 2010).

In order to avoid any such errors occurring in my analysis, and to avoid the inherent difficulties in making statistical inferences across different levels of analysis, I adopted the alternative approach of using variables that are uniquely defined at the higher level of analysis. By assessing global effects (those that refer to structural characteristics of the collective itself, specific to the group and have no individual analogue) rather than those derived from aggregated individual data, errors of inference may be overcome. Independent data that did not also contain the biases inherent in the SCJS was required; thus the use of census data available via Scottish Neighbourhood Statistics.

### 3.4.3 Scottish Neighbourhood Statistics

The geographic indicators already included in the SCJS data (Police Force Area (PFA), Local Authority Area (LAA)) are too general to be used for reliably estimating the impact of neighbourhood conditions on an individual's experience of victimisation and are thus of limited use for the analysis suggested here. The limited number of police forces and/or local authorities within Scotland means that conducting analysis using these as geographic indicators would provide insufficient neighbourhoods to estimate multilevel models. Also, these areas are relatively large and will encompass many smaller areas (more akin to neighbourhoods) that are distinct in their socio-economic nature and likely impact on victimization (Norris, 2009).

In order to avoid errors of inference resulting from aggregating variables measured at the individual level up to the neighbourhood or macro level, the recommendation (Hope, 2009; Osborn et al., 1992; Kennedy and Forde, 1990) to use contextual variables drawn from an independent source was followed here. Thus, community level variables were drawn from the Scottish Neighbourhood Statistics database, a Scottish Government initiative aimed at disseminating a range of small area statistics including information on health, education, poverty, unemployment, housing, population, crime and social / community issues at the data zone level and above derived from the UK census as well as other data sources. Variables of interest were identified and downloaded from the SNS website and were then linked to the SCJS dataset at the intermediate geography (IG) level.

A number of steps were however required to make this possible, as Intermediate Geography identifiers are not part of the publicly available SCJS dataset. As such, it was necessary to specially request this data from Scottish Government. This request was eventually met, following the implementation of a data access agreement between Scottish Government and the Scottish Centre for Crime and Justice Research (SCCJR) on behalf of me and my primary supervisor, Professor Susan McVie. Once in place, Intermediate Geography identifiers were made available in a password protected file linked to victim form serial numbers, thus allowing linkage with the remaining SCJS data.

There is a geographic hierarchy in Scotland that consists of postcode units nested within census output area nested within data zone nested within Intermediate Geography nested within Local Authority (Scottish Executive, 2005). This system allows for the

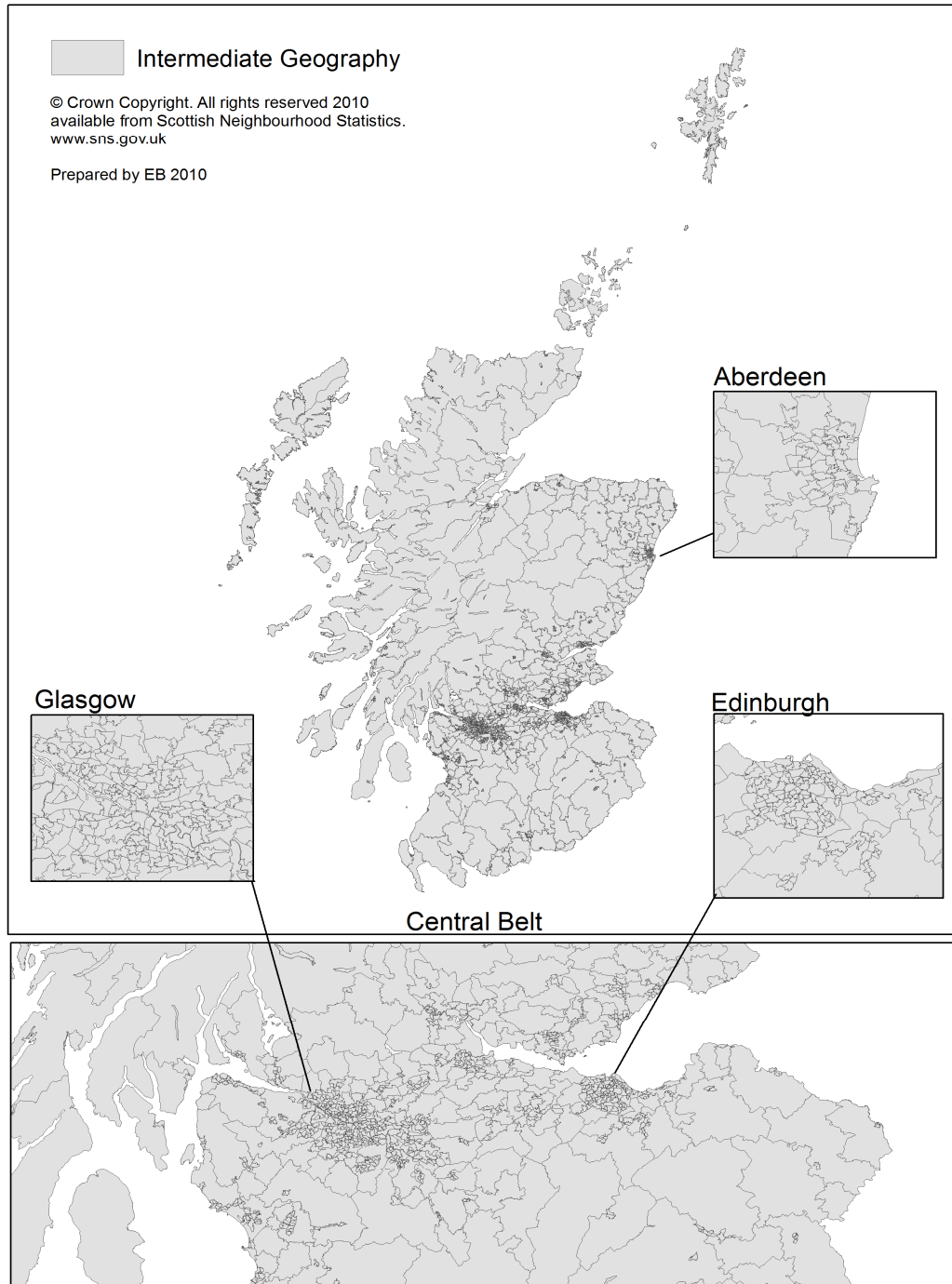
easy aggregation of geographically referenced information to any layer of the hierarchy (although not all information is available at all levels); making analysis more efficient as well as removing potential issues of confidentiality which are raised when statistical geographies overlap or contain very few data points. As Intermediate geographies were constructed to encompass between 2500 and 6000 people, on average containing 4000 households, they were adapted as a level of aggregation at which it was appropriate to release data that could not safely be released at the smaller data zone level; again due to issues of confidentiality.

Scotland is composed of 1235 Intermediate Geographies, a number close to the number of electoral wards (1222 in 1999) suggesting that this geography could be considered similar to that used for existing work with the BCS (Norris, 2008). Furthermore, community boundaries were taken into consideration in the construction of Intermediate Geographies, as were significant physical boundaries such as motorways, railways and valleys. Where possible, they were also designed to group together data zones with similar characteristics, for example those measured by the Scottish Index of Multiple Deprivation, and to respect local authority boundaries as of the 2001 Census. This careful design ensures that this level of geography does in fact reflect real world neighbourhoods, rather than purely convenience or statistically based boundaries. The use of intermediate geography provides a level of aggregation that, while small enough to allow for locally based analysis, will allow for linking with census derived contextual variables, and also ensure the confidentiality of survey respondents. Figure 3.1 below presents a map of Intermediate Geographies across Scotland, with insets showing the concentration around major urban areas. A comprehensive list and discussion of variables derived from SNS data is provided in the section 3.4.3 below following discussion of incident and individual SCJS variables.

### 3.5 Explanatory Variables

Once all the data had been linked together, from the SCJS, Intermediate Geography identifiers, and Scottish neighbourhood statistics, explanatory variables were identified for further testing and analysis. Explanatory variables were measured at three levels of aggregation, incident, individual and intermediate geography. The inclusion of variables at each level was based on the previous research and theory surrounding the risk of

Figure 3.1 Intermediate Geography Across Scotland



victimisation, reporting of crime to the police, service utilisation and satisfaction with services covered in Chapter Two. Explanatory variables at the incident and individual level were drawn exclusively from the SCJS dataset whilst, as mentioned previously, neighbourhood level variables were drawn from SNS data and linked to the crime survey at the level of Intermediate Geography. Variables at the individual and neighbourhood levels were included in all modelling, whilst variables measured at the incident level were only included in the models of reporting, service use and satisfaction. The following three subsections will introduce the predictor variables at each level with reference to the literature and theory that forms the basis for their inclusion.

#### 3.4.1 Incident Level Explanatory Variables

Explanatory variables measured at the incident level appear only in the models of reporting, service uptake, and satisfaction. This is due to the fact that when modelling the risk of victimisation, the dependent variable, whether or not one has been the victim of a crime (either property or personal) is measured at the individual level. As they pertain to specifics about a particular incident, variables measured at the incident level are only recorded for survey respondents who have in fact been the victim of one or more incidents of crime. Thus, variables from this level of data were relevant to the models of reporting, service uptake, and satisfaction with service only, as all of these actions must be decided after each separate incident of crime.

In the design of this thesis, the analysis of reporting behaviour will follow the analysis of victimisation risk, therefore incident level variables predicted to have an impact on reporting were the first to be identified from the SCJS data. An in depth discussion of the literature on reporting has already been provided in the previous chapter, but key findings will be highlighted here as they influenced variables selection. Probably the most recurrent finding in previous research (see Skogan, 1988) is the effect of the perceived seriousness of the crime on the likelihood of reporting. Defining seriousness is, then, a challenge faced in any subsequent tests of this phenomenon. Previously, Skogan (1988) used the BCS variable which measures the victim's perception of seriousness on a scale of 1 – 20. Unfortunately, the SCJS has no such variable, thus the present study employed a number of incident based variables to represent the seriousness of the offense. These included the presence of a weapon, whether or not the victim was threatened, whether or not the victim was injured, whether or not the

offender used force, and whether or not the victim spent any time in hospital. Due to the fact that these variables relate only to personal crime, whereas I am examining property crime as well, the seriousness of an incident was also determined by the psychological or emotional impact variables discussed in the next paragraph. Despite previous research suggesting sexual offences tend to result in more negative consequences for victims; it was not possible to use the variable measuring whether or not there was a sexual element to the offense due to a considerable proportion of missing data.

A number of variables were included measuring the victim's emotional reactions following the incident. This was done in two ways; one variable asked which emotion was felt most strongly following the incident with possible categories of response being: anger, shock, fear, depressed, anxious/had panic attacks, lost confidence, had difficulty sleeping, crying/tearful, annoyed, and other. Then, in order to clarify the impact of different types of emotions, each emotion was tested individually; for example one resulting variable would be whether the respondent felt anger following the incident (yes/no).

A further number of incident level variables examined the effects of insurance, the victims' relationship with the offender as well as characteristics of the offender/s. Of course, the likelihood of compensation from an insurance company was relevant only in the models of property crime, and was tested via the inclusion of two variables, one assessing whether stolen or damaged property had been insured, the other whether or not an insurance claim had in fact been made. A number of variables examined the relationship with the offender and reporting, as this may affect a victims' decision when, for example, the offender was a close family member. Finally, a number of characteristics of the offender, including gender, age, and ethnicity were tested; one variable also measured how many offenders were known. These measures were however of limited use as many victims were unable to recall information about offenders, or had not had direct contact with them, resulting in limited amounts of data.

An attempt was also made to look at the effects of fear of crime and confidence in local police services via the inclusion of a number of variables such as how safe respondent feels walking alone at night, how safe respondent feels alone at home at night, belief that police in local area do a good job and whether or not the victim had had problems with unfair treatment by the police in the last 3 years. Unfortunately, each of these variables were again suspect due to large proportions of missing data; on average 625 cases



missing. Although MLwiN handles missing data well, when it is nearly half the sample, as it was in the model of reporting personal crime the reliability of results may be called into question.

Table 3.1: Incident Level Explanatory Variables

	Variable	Categories
Level 1	Whether the event was perceived to be a crime or not	Yes, No
	Was stolen property insured?	Yes, No
	Was an insurance claim made?	Yes, No
	Number of offenders involved	1,2,3,4+, unknown
	Sex of offender	Male, female, Both, unknown
	Whether or not the offender was known to the victim	All known, some known, none known
	Age of the offender	Under/of school age, 16-24, 25-40, 40+
	Ethnicity of the Offender	Non-white, white
	Offender had a weapon?	Yes, No
	Offender used Force?	Yes, No
	Victim was injured?	Yes, No
	Victim Required Hospitalization?	Yes, No
	Offender used Threats?	Yes, No
	Incident was part of a series?	Yes, No
	Emotion Felt most strongly following the incident	Anger, Shock, Fear, Depressed, Anxious/had panic attacks, Lost confidence, Difficulty Sleeping, Crying/Tearful, Annoyed, Other
	Respondent felt anger?	Yes, No
	Respondent felt shock?	Yes, No
	Respondent felt fear?	Yes, No
	Respondent felt depressed?	Yes, No
	Respondent felt anxious/had panic attacks?	Yes, No
	Respondent lost confidence?	Yes, No
	Respondent had difficulty sleeping?	Yes, No
	Respondent was crying tearful?	Yes, No
	Respondent felt annoyed?	Yes, No
	How much of a problem is crime in Scotland?	A big problem, a bit of a problem, not a problem
	How safe respondent feels walking alone at night?	Very safe, fairly safe, a bit unsafe, very unsafe
	Perceived change in crime rate in local area	A lot more, a little more, about the same, a little less, a lot less
How safe respondent feels alone at home at night	Very safe, fairly safe, a bit unsafe, very unsafe	
Belief that police in local area do a good job	Very good, fairly good, neither good nor poor, fairly poor, very poor	
Problems with unfair treatment by the police in the last 3 years?	Yes, No	

One further variable measured victims' perceptions of the incident; that is, whether or not they perceived it to be a crime. This variable was included for a number of reasons, including that thinking the crime was too minor or insignificant is a common reason for not reporting in Scottish Government's analysis of SCJS data (Macleod et al., 2009). Secondly, psychological research with victims (see Taylor et al., 1983) suggests a common defence mechanism may be to downplay or minimise the incident, with the foreseeable result being non-reporting. Finally, one variable asked respondents if the present incident had been part of a series (or not). This variable is of particular interest as it is the only indicator of repeat victimisation available in the SCJS.

Although many of the variables included at the incident level reflected a hypothesized relationship with reporting behaviour, many were also expected to relate to the uptake of available victim services and satisfaction with services received. For example, variables relating to the seriousness of the incident were again tested in both models of service use and satisfaction; the logic being that victims of more serious incidents would be more likely to seek help (see Golding et al., 1988), and hopefully, more likely to find service provision useful. One explanation for this common finding may be that police are more likely to ensure that victims of violence are made aware of available services, thus whether or not the crime was reported was also included as an explanatory variable in the model of service use. Emotion variables were included in these models based on a similar logic; that those experiencing greater negative emotional or psychological symptoms would be more likely to seek help and again find it meaningful. A complete list of variables measured at the incident level is provided in table 3.1 above.

#### 3.4.2 Individual Level Explanatory Variables

The theory and previous research discussed in Chapter Two were again used as reference for the inclusion of variables at the individual level. For example, Routine Activity Theory suggested that individual characteristics related to lifestyle can increase risk; therefore variables measuring demographic indicators such as age, gender, income, marital status, a history of offending (including stays in prison, young offenders institutions, and community sentences), and tenure of home were included in the analysis. Additionally, variables relating to social disorganisation were also included

such as the Scottish Index of Multiple Deprivation (SIMD), an urban/rural indicator, type of accommodation, and length of time in local area. In contrast to variables measured at the incident level, which were only included in the analysis of reporting behaviour, service use and satisfaction; individual level variables were also employed in the analysis of victimisation risk.

To elaborate further, in the investigation of victimisation risk one would expect, according to Routine Activity and Lifestyle theories, the demographic and socioeconomic characteristics of individuals and their households, as well as their lifestyle patterns and routine activities to determine their exposure to crime. In the case of property crime, they do so by influencing a household's chances of attracting motivated offenders in the absence of capable guardians (Tseloni, 2006). Thus, lifestyle affects household's exposure to victimization via guardianship (or lack thereof) whilst the effects of demographic and SES characteristics are mediated through proximity to potential offenders (Tseloni, 2006). Offenders may then use the criteria of suitability, accessibility and desirability in their choice of target (Miethe and Meier, 1990).

In this analysis, guardianship is represented by household composition, the number of adults per household, marital status, and length of time in local area variables. Much past research (Osborn et al., 1996) into victimization risk has indicated that single adult or single parent households face the greatest risk, presumably due to low levels of guardianship. Also, Tseloni (2006) suggests that the longer properties are occupied or people live in an area, the more likely they are to have social networks and friendship ties which provide an element of social guardianship, which in turn may lower their risk of victimization. Proximity to potential offenders is represented in the present study by the urban/rural indicator as well as a variable measuring the presence of an offending history. It is expected due to population density that urban city centres will contain more potential offenders than rural areas, and that respondents who have a history of offending will be likely to share that characteristic with their peers. Type of accommodation is also related to target desirability via accessibility. For instance, a detached house without any security measures may be an easier target than a third floor flat with secure access. Target desirability is additionally reflected via the total household income and tenure variables. Finally, age and gender are included in the model as survey results (Page et al., 2009) have indicated that males between the ages of 15-24 are most often the victims of crime, and that risk decreases with age.

Unfortunately not all variables examined in previous research could be tested due to limitations in the data. For example, the SCJS does not measure educational attainment.

In the models of reporting and service use/satisfaction many of these same variables were tested, as research mentioned previously would suggest, for example that women and older victims would be more likely to report crime (Skogan, 1988). Victim characteristics reflecting socio-economic status have also been found to be important in that respondents from families with higher household income, owner occupiers, those living in least disadvantaged neighbourhoods and the employed are more likely to report crimes (Baumer, 2002). Further research reviewed in Chapter Two suggests the uptake of services may be affected by a range of social factors such as gender, race, culture, sexuality, class, disability, poverty, age and health (Dunn, 2007). Another common finding is that victims with the fewest informal and social avenues of support will be the most likely to seek out services while Simms et al., (2005) found that victims of violence, women, non-whites, those earning less than thirty thousand dollars, receiving government assistance or not working full time were more likely to use services. A full list of all variables measured at the individual level is provided in table 3.2 below.

Table 3.2: Individual Level Explanatory Variables

Level 2	Age	16-24, 25-54, 55-74, 75+
	Gender	Male, Female
	Urban/Rural	City, Town, Rural
	Number Adults/Household	1,2,3,4+
	Tenure of Home	Owned, Social Rented, Private Rented, Other
	Accommodation Type	House, Flat, Other
	Offender	Yes, No
	SIMD quintiles	1=Most Deprived, 5=Least Deprived
	SIMD most deprived 15%	15% Most Deprived, Other
	Marital Status	Single, Married/civil partner, Divorced/separated, Widowed
	Time in Local Area	<1year, 2-4 years, 5-9 years, 10+
	Income	Continuous
	Employment Status	Employed, Unemployed, Inactive
	Ethnicity	White, Asian, Black, Other
	Household Composition	Single Adult, Single Pensioner, Single Parent, Small Family, Large Family, Small Adult, Large Adult, Older Smaller
	How often out after dark	Every day, Once/week, Once/fortnight, Once/month, <Once/month, Never

### 3.4.3 Community Level Explanatory Variables

Data at this level was drawn from Scottish Neighbourhood Statistics and measured at the level of Intermediate Geography so as to avoid the fallacy issues discussed above. Some theoretically desirable indicators such as ethnic diversity and population mobility were not available, though a fairly extensive list of explanatory variables was assembled from the available data and tested for significant impact.

In the investigation of victimisation risk, previous research (see Sampson and Groves, 1989; Osborne et al., 1992) suggests that at the macro level crime is determined predominantly by community characteristics such as socioeconomic status, residential mobility, ethnic heterogeneity, family disruption and urbanization. In the present study, this hypothesis is elaborated on, suggesting that community characteristics should also have an effect on reporting behaviour as well as the uptake of victim services. Thus, a number of variables were included in an attempt to highlight meaningful characteristics of communities. For example, the percentage of young people in a neighbourhood may be seen as indicating a lack of informal social control, or a proximity to potential offenders; it will also be linked to the number of victims, and young people are also less likely to report (Page et al., 2009; Skogan, 1988). The percentage of households receiving a single adult discount is also useful in this sense. The percentage of income deprived reflects the community's socioeconomic status as does the percentage of detached homes, albeit in the opposite direction. Total population and number of dwellings are included as a measure of density and social cohesion (Goudriaan and Nieuwbeetra, 2006). The percentage of flats versus detached homes reflects both neighbourhood income and urban versus rural status. The number of vacant or empty dwellings, and proximity to derelict sites measures more along the lines of a 'broken windows' sense of community; empty houses and vacant, run down lots invite crime and discourage community pride and cohesiveness. Table 3.3 provides an overview of all variables tested for significance at the neighbourhood level.

Table 3.3: Community Level Explanatory Variables

Level 3	% victims (aggregate variable)	Continuous
	% aged 16-24	
	% income deprived	
	% employment deprived	
	% dwellings flats	
	% detached homes	
	% dwellings occupied	
	% receiving Single Adult discount	
	% within 500m of derelict site	
	% pensioner	
	% receiving income support	
	Total dwellings	
	Total population	

#### 3.4.4 Qualitative Interview Data

Data was gathered in interviews with ten victims of crime recruited through Scottish Government as previous respondents to the SCJS, and Victim Support Scotland. Details of the recruitment process, interview schedule, and ethical considerations are given in the next chapter on methodology. From 250 invitations to interview, delivered by post, only ten interviews were completed, equal to a response rate of 4%. Although this is rather poor, the fact that participants were being asked to partake in an approximately one hour long interview, detailing what was likely to have been a traumatic or at least disturbing event, rather than simply complete a questionnaire, sheds light on the low levels of participation.

Eventually, ten interviews were completed with victims of crime who resided within the Edinburgh Local Authority Area. The sample consisted of six female respondents, two described as younger (late twenties to early thirties) and two elderly (over sixty) and four male respondents, two younger and two older. Of the ten interviewees, seven had been the victim of a violent crime, while three had been victims of property related offences. Specifically, the type of offences covered by respondents included robbery, both minor and serious assault, theft, burglary, vandalism, harassment, and a home invasion. The sample was split 50/50 between those victims who reported experiencing a single incident, and those who reported being repeatedly victimised.

Interviews were recorded (with the permission of participants) and transcribed verbatim into documents for analysis. The questionnaire was designed to cover the

same steps or stages of victimisation as the quantitative modelling. Thus, it was divided into three sections, addressing the initial incident and its impact, reporting and non-reporting, and experience with support services. The first section covered the incident in-depth and required participants to give a narrative of the crime they wished to speak about, typically in response to the question 'Could you tell me a bit about what happened?' This would in turn be followed by further questions to clarify the nature and specifics of the incident if needed. Participants would then be asked to speak about the impact the event in question had had on their life. Section two of the interview covered the time following the incident and involvement with the criminal justice system, or reasons for non-involvement if there was none. The third section of the interview asked interviewees to talk about any services they received following the incident, or alternatively, why they did not make use of victim support opportunities. Finally, victims were asked if they had any concluding remarks about their experience, including their overall perception of the police, victim support, and the criminal justice system.<sup>5</sup>

### 3.5 Analytic Framework

This thesis recognises that victimisation is a complex process; one that is only just beginning when a crime occurs. It was therefore thought that to study such a complex process using only single-methods, single-observers, or a single theory would be to risk oversimplification and biased results. In fact, using a single theory was largely out of the question, as no single theory exists which seeks to explain more than any one particular aspect of the victimisation process. This is why, in the previous chapter's review, the literature was broken down to coincide with each step of the victimisation process. It is also why the analysis of both quantitative and qualitative data will be carried out to also coincide with the process. This design allows for the theory relevant to each step in the process to inform variable selection, whilst leaving open the opportunity for links to be made across theories and across steps in the process. Additionally, the adoption of this framework is best suited to garnering greater understanding of the impact of crime and the experience of victimisation as it requires a comprehensive approach to the problem.

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<sup>5</sup> The full interview schedule is available in the appendix.

### 3.6 Summary

This chapter has covered the empirical advantages of using a mixed methodological research design, particularly in the study of victimisation. It then introduced a number of hypotheses to be tested in the forthcoming analysis, followed by an in-depth discussion of the data used and the variables to be tested. The following chapter will build on the discussion of mixed methods by introducing the specifics of the analysis employed in this thesis. It will cover the quantitative methodology employed, specifically binary logistic multi-level modelling and Markov Chain Monte Carlo estimation, as well as the analytic framework employed in the analysis of qualitative data.



## Chapter 4: Methodology

### Introduction

As described in the previous chapter outlining the research design, this thesis makes use of both quantitative and qualitative methodologies. The purpose of this chapter is to provide detail of the exact methodologies employed in both the quantitative and qualitative aspects of the research. Thus, this chapter will be broken down into two sections, the first describing the quantitative techniques used, and the second the qualitative approach. The quantitative portion of the chapter will discuss the merits of multi-level modelling over traditional regression models, a step by step guide as to how the analysis was carried out, as well as provide an explanation of indices of model fit and variance partitioning. The discussion of the qualitative methods used will first cover the recruitment of participants, followed by a discussion of the analytic framework employed, and will conclude with an overview of the ethical considerations involved in this research.

### 4.1 Quantitative

#### 4.1.2 Why Use Multi-level models?

The general motivation behind the use of multilevel modelling lies in a number of assumptions, the key one being that variation in a dependent variable is a function of not only lower-level but higher-level factors. In addition, the relationship between these factors and the dependent variable is not assumed to be fixed or constant across space or time. Therefore, when examining individual-level data, variation in behaviour (or attitudes, preferences, and so forth) is not only a function of individual-level attributes, but also environmental or macro-level factors (Jones and Steebergen, 1997). Neither criminal activity nor society's reaction to it occurs in a vacuum; for this reason, criminology, as a discipline, is inherently a multi-level discipline (Johnson, 2010). Because our social world is inherently multi-level, modelling only individual level explanations of victimisation may thus be seen as over simplistic due to the fact that an individual's experience of crime and justice will always be situated within their social context (Norris, 2008). As multi-level models are bound to improve our ability to

explain both individual behaviour and society's reaction to it, they are best suited to the current analysis. A number of advantages will be described below generally, and then applied to the aims of this thesis.

There are numerous methodological as well as theoretical advantages to using multi-level analysis over traditional regression techniques. Statistically speaking, the advantages of using multi-level models are numerous, and include the provision of improved parameter estimates, corrected standard errors, as well as the ability to conduct more accurate significance tests. For example, whilst single level analysis considers only the average or general relationship across cases, multi-level models use an extension of traditional regression models to account for the structuring of data across aggregate groupings. That is, they explicitly account for the nested nature of the data across multiple levels of analysis. This is necessary as statistical dependencies are likely when individual data is nested within aggregate groups, that is, the observations are clustered. Clustered observations are much more likely to share unaccounted-for similarities, in other words, the residual errors will be correlated. Traditionally, statistical modelling has faced difficulties with such dependence, with the typical response being to look the other way; but with multilevel modelling such correlation is expected and explicitly modelled (Rashbash et al., 2009). A common example of this phenomenon taken from educational research is the clustering of students within classrooms or schools. Students within one class, albeit dependent on the variables under investigation, are likely to be more closely related to students in their class than in another. Presently, it would be safe to assume that victims experiencing crime in Glasgow city centre will be more like their neighbours than victims in the Outer Hebrides. Therefore, when data is clustered in this sense, ordinary regression models are inappropriate due to the key assumption of independence of errors. The violation of this assumption will result in the underestimation of standard errors, with the further resultant consequence of overly liberal tests of statistical significance which in turn increase the risk of making a Type 1 Error (errors in which the null hypothesis is falsely rejected even when true in the population) (Hox, 1998). Thus, only by using multi-level analysis which takes account of the nested structure of data, can we account for statistical dependencies that occur among clusters of hierarchically organised data. In other words, it can account for the relationships between groups of similar individuals, such as classrooms within schools, or residents in a neighbourhood.

One weakness of ordinary regression models is that statistical significance tests will use incorrect degrees of freedom for higher level predictors in the model. This result is due to the fact that traditional regression models will fail to account for the fact that nested data are often characterised by different sample sizes at each level of analysis; it is highly unlikely that there would, for example, be the same number of pupils as there are classrooms, which is exactly the case in the current data where, for instance, there were some 1177 incidents of personal crime, nested within 952 persons, nested within 790 intermediate geographies. Without adjusting the degrees of freedom for the number of units at the higher level in the data, the amount of statistical power available for testing predictors at this level will be exaggerated (Johnson, 2010). Multi-level models, by comparison, are easily capable of handling unbalanced sample designs with differing sample sizes at different levels in the data. Variations in the number of observations per cluster, even when some clusters contain only single observations, are easily dealt with in multi-level models. That being said, it is still clear that by increasing sample sizes at all levels, estimates and their standard errors will accordingly become more accurate (Hox, 1998). The general rule of thumb when conducting multi-level analysis is that the more groups at level two, the better. This facilitates higher order significance tests and produces more precise estimates of group variance. Although there are no rules set in stone regarding the number of groups required, Raudenbush and Bryk (2002) suggest that for a basic random intercept model at least 10 level two units are required for each level two unit that is included in the model. Kreft (1996) on the other hand suggests what she calls the '30/30' rule, whereby researchers should aim for at least 30 groups each containing 30 respondents. This rule is however flexible in order that it may accommodate varying research interests, in that it changes to the 50/20 rule or 100/10 depending on the particular research question (Hox, 1998).

Another statistical advantage of multi-level analysis is the ability to model heterogeneity of effects. Whilst single level regression models assume that individual predictors exert the same effect in each aggregate grouping, multi-level models allow for variation in the effects of individual predictors across higher levels of analysis (Johnson, 2010). In fact, multi-level analysis allows for this type of variation to be explicitly incorporated into a model, providing the researcher with a useful tool for better capturing real world complexity that is likely to characterise individual influences across contexts. Thus, as the process of victimisation is undoubtedly a complex one, this type of modelling will allow the possibility that, for example, explanatory factors such as income may have

different effects in different neighbourhoods such that the relationship of wealth and victimisation is positive in highly deprived neighbourhood, and negative in well to do one. Furthermore, these models also provide for convenient and accurate tests of cross level interactions, or moderating effects that involve both individual and ecological variables.

Finally, from a theoretical perspective, the assumption that explanatory variables operate only at a single level of analysis is likely to provide an overly simplistic and incomplete portrayal of the complex social world in which we live (Johnson, 2010). Furthermore, such an assumption risks the introduction of omitted variable biases of a large scale theoretical nature, as well as errors of inference such as the ecological and individualistic fallacies where variance occurring at one level is erroneously attributed to variables operating at a different level, discussed in the previous chapter.

#### 4.1.3 Binary Logistic Multi-level Modelling

Most conventional multi-level methodology has been developed for continuous response data and dependent variables at the individual level (Goldstein, 2003). Victimization survey data such as that gathered in the BCS, SJCS and NCVS however; typically use a simple dichotomy (yes or no) to record information on whether a sample individual was victimized within a recent specified period. This dichotomy is also used in recording whether or not an offense was reported. This form of data requires that we adopt the hierarchical logistic regression model (Goldstein, 1991; Rountree et al., 1994). As logistic regression is a simple extension of the traditional linear regression equation, so too is logistic multi-level regression a fairly straightforward extension of linear multi-level models. The traditional way of extending linear regression to binary data is to use a Taylor Series expansion to transform a discrete response model into a continuous response one, though this means that the estimates they produce are based on quasi-likelihood estimation rather than maximum likelihood (Browne, 2009). In simple linear regression the slope and intercept are fixed, the assumption being that the model holds true across the entire sample and that for every case of the data in the sample we can predict a score using the same values of the slope and intercept. This however, is not necessary when using multi-level models where both the intercept and slope may be allowed to vary. This is made possible by allowing each level in the data to have its own error term. So, where the simple regression model

$$y_i = \beta_0 + e_i \quad (4.1)$$

is extended to split the residuals into two components, each corresponding to the levels in the data structure, the group level residuals (aka group random effects) are denoted as  $\mu_j$ , and the individual residuals as  $e_{ij}$ , it becomes

$$y_{ij} = \beta_0 + \mu_j + e_{ij} \quad (4.2)$$

Here  $\beta_0$  is the overall mean of  $y$  (across all groups), and  $e_{ij}$  is the difference between the  $y$  value for the  $i^{\text{th}}$  individual and that individual's group mean. The extension from a single level, or simple logistic regression equation

$$\log\left(\frac{\pi}{1-\pi}\right) = \beta_0 + \beta_1 x \quad (4.3)$$

to the multi-level model is also fairly straightforward and follows the same process as in extending the linear model. That is, the addition of a group level residual term  $u_j$ .

$$\text{logit}(\pi_i) = \log\left(\frac{\pi_i}{1-\pi_i}\right) = \beta_0 + \beta_1 X_{ij} + u_j \quad (4.4)$$

where  $u_j \sim N(0, \sigma_u^2)$ .

Furthermore, this two level model may in turn be extended to cover three levels of data,

$$\text{logit}(\pi_i) = \log\left(\frac{\pi_i}{1-\pi_i}\right) = \beta_0 + \beta_1 X_{ijk} + u_{jk} + v_k \quad (4.5)$$

where  $\mu_j \sim N(0, \sigma_u^2)$  and  $v_k \sim N(0, \sigma_v^2)$ .

This resulting model denotes 3 levels of analysis, for example  $i$  incidents within  $j$  individuals within  $k$  neighbourhoods and splits the residual variance across the three levels of the model. Here, we interpret  $\beta_0$ , referred to as the overall intercept, as the *log-odds* that  $y = 1$  when  $x = 0$  and  $u = 0$ . As in the single-level model,  $\beta_1$  is the effect of a 1-unit change in  $x$  on the log odds that  $y = 1$ , but it is now the effect of  $x$  after adjusting for (or holding constant) the group effect  $u$  (Steele, 2009).

When conducting a multi-level analysis, one has the further choice between the use of a random intercept model, a random slope model, or a combination of the two. A random intercept model allows the intercept to take on different values for each level two unit in the data. However, although this model allows the group means to vary as a product of

level two predictors, it assumes that the effects of the level one predictors are uniform across level two units (Johnson, 2010). In other words, while the intercept may vary, the slope is assumed to be the same for all groups. In contrast, the random slope model allows the slope to vary between groups in addition to the intercept. Thus it implies that the between group variance is constant. The type of model used will depend on both theoretical and statistical considerations. In this case, random intercept models were used as the aim was to uncover whether or not variance exists between intermediate geographies. Explanatory variables were however tested for random effects (see Chapter Five) and interactions, though few, if any, were significant. That being said, regardless of the type of model being employed, it is highly recommended (see Norris, 2008) to use Markov Chain Monte Carlo (MCMC) estimation in the running of your final model. The advantages of this type of estimation over more common quasi-likelihood techniques are discussed below.

#### 4.1.4 Markov Chain Monte Carlo Estimation

The software package MLwiN was used as it is able to run both multi-level models and MCMC estimation. MLwiN was developed by the Centre for Multi-Level Modelling at the University of Bristol, and is purpose built for running hierarchical data. The default methods of estimation used in MLwiN, iterative generalized least squares (IGLS) with first order marginal quasi-likelihood (MQL) approximation or penalised-quasi-likelihood (PQL), are likelihood based frequentist methods designed specifically for hierarchical models (Browne, 2009). These methods work by finding a (restricted) maximum likelihood point estimate for the unknown parameter of interest in the model. In order to do so they use iterative procedures, a process which involves iterating between two deterministic steps until two consecutive estimates for each parameter are sufficiently close together, hence achieving convergence. However, MQL/PQL estimation has been shown to consistently underestimate parameter values (Rodriguez and Goldman, 1995; Jang and Lim, 2009) resulting in an increased risk of a type II error. In other words, it risks a false negative. To overcome this problem, MCMC methods are suggested as an alternative and used in the current analysis so as not to miss any small, yet significant effects.

When comparing MQL and PQL with MCMC, MCMC methods are more general in the sense that that they can be used to fit many more statistical models; but are also more

powerful in that MCMC is a Bayesian approach in which all inference is based on the joint posterior distribution (Browne, 2011). The aim of the approach is thus to create a sample of values from the posterior distribution of the unknown parameter, which is in turn useful for producing accurate interval estimates (Browne, 2009). These methods are thus simulation based procedures in that, rather than simply producing a point estimate, the methods are run for a large number of simulated draws, with each draw producing an estimate for the unknown parameter, and then use these random draws to form a summary of the underlying distribution (Browne, 2011). These estimates will however not be independent as, for each iteration, the estimate from the previous iteration is used to produce the new one. The resulting samples are therefore correlated and estimation of the standard deviation of an estimate and assessment of the error may require more care than with independent samples (Hastings, 1970). This correlation tends to be positive, which can mean that the chain must be run for many thousands of iterations to produce accurate posterior summaries.

Sampling from the joint posterior distribution for complex models may be difficult, resulting in the need to alternatively sample from a conditional posterior distribution. Thus, MLwiN uses a type of sampling called Gibbs Sampling which simulates a new value for each parameter from its conditional (probability) distribution, which can be simulated from easily, and is equivalent to sampling from the joint posterior distribution (Browne, 2011). However, when modelling non-normal responses, as in the logistic models presented in this thesis, MLwiN will not allow Gibbs sampling, and instead uses the more general Metropolis-Hastings method. This method allows one to obtain a sequence of random samples from a probability distribution when direct sampling is difficult.<sup>6</sup>

#### 4.1.5 Procedure

Quantitative analysis was carried out using both SPSS and MLwiN software. A fairly straightforward process of model building may be employed when using MLwiN, consisting of three to four steps, depending on the desired outcome. The first step in any multi-level model is to see if in fact, a multi-level structure is required. This is done by a test of the null hypothesis ( $H_0$ ), which in this case states that there will be no (or insignificant) variance between level two units. That is,  $H_0: \mu_{0j} = 0$ , where  $\mu_{0j}$  is

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<sup>6</sup> For an in-depth discussion of MCMC methods and sampling the reader is referred to Browne (2011).

representative of the level 2 variance. The alternative hypothesis (H1) is therefore that there will in fact be a significant amount of variance between units at level two, or H1:  $\mu_{0j} = \emptyset$ . When testing the null hypothesis in a three level model, this hypothesis is simply extended to suggest that any variance at level three,  $\nu_{0k}$ , will be non-significant, or H0:  $\nu_{0k} = 0$ , with the corresponding alternative hypothesis H1, proposing  $\nu_{0k} = \emptyset$ . Two methods are available for testing of the null or empty model. The first, and simplest, is to use the default method of estimation, MQL, to produce an estimate of  $\mu_{0j}$ . This estimate may then be tested using a chi square for joint contrasts test, the result of which is compared to the chi square distribution. When testing variance parameters, the degrees of freedom will always be one, making the critical chi square value equal to 2.94. If a chi square statistic is significant (ie  $>2.94$ ) an alpha value can be obtained, and then divided by 2, to achieve the equivalence of a one-tailed test, as variance parameters must always be positive. However, as MQL has the tendency to underestimate coefficients and variance parameters, (Hox, 1998) the alternative test of comparing Diagnostic Information Criterion (DIC) values obtained through MCMC estimation is preferred. The DIC will be discussed in detail below, for now let it suffice to say that lower values of the DIC are preferred. In this method, we first run the model with only a single level, taking note of the DIC. We then expand the model to include two, or three if necessary, levels, and again take note of the DIC. If the DIC for the two level model is at least 5 points lower than that of the single model, the null hypothesis is refuted and the two-level model retained. DIC values are included for all models tested here, and are presented along with other indicators of model fit in Chapter Five.

Once I had decided that multi-level models were appropriate for my analysis, the next step was the careful investigation of the descriptive statistics and distributions of predictor variables, followed by the investigation of bi-variate relationships. As Johnson (2010) notes, multi-level analysis may quickly become complicated and cumbersome when applied to research questions involving multiple predictors across multiple layers of analysis; highlighting why it is essential to conduct thorough exploratory analysis and to carefully build the model from the ground up. Thus, by assessing bi-variate relationships between independent/predictor variables and the dependent variable, one is able to assess the impact of a given predictor, and discount insignificant variables from further analysis.

The next stage involved the challenging process of deciding upon a final model. This may be simple or extremely difficult depending on the number of variables involved, and the

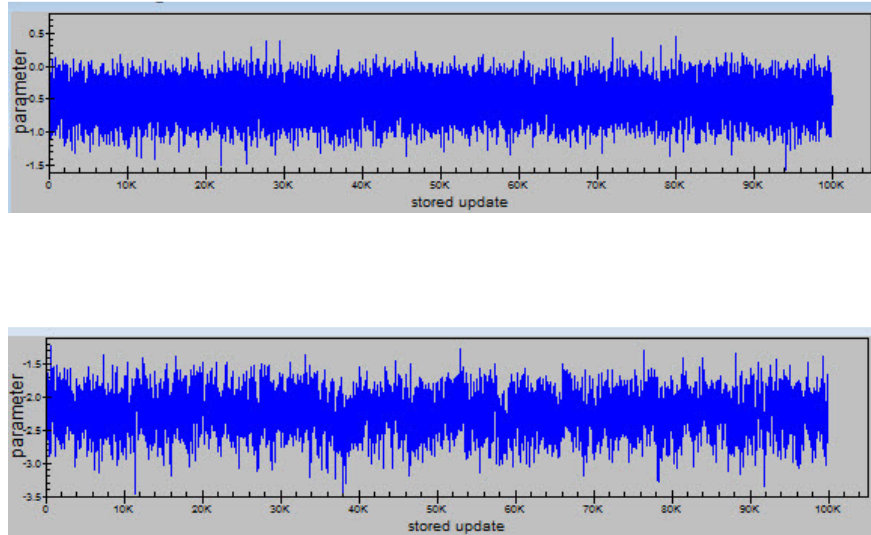


presence of interactions among variables or across levels. Theory and parsimony play an important role here in guiding interpretation and model building. Whilst theory guided which variables were included for testing in the first place, the decision on a final model was largely driven by the empirical findings and the parsimony of the model. This meant that explanatory variables that were having especially strong effects as evidenced by their significance and size would be retained and that care was taken in monitoring the number of variables and/or random effects so as not to end up with an unwieldy and difficult to interpret model. Once a final model was decided upon it was run in MCMC as this is highly recommended in order to obtain deviance statistics to compare the model with the original null or empty model, as well as to allow for the more reliable estimation of coefficients.

When switching from quasi-likelihood estimation to MCMC, it is easiest to start with the default settings provided in MLwiN. That is, the run length of the chain will be set to 5000 iterations, and burn in length will be set to 500. The process of 'burning in' is used to discard results of the first 500 iterations as these tend to be highly correlated and thus unreliable. The chain length, or number of iterations, will often need to be extended in order to achieve reliable estimates. The default setting for thinning is also set to 1, which simply means that every iteration will be used in the calculation of the coefficient; whereas if results suggest a high level of correlation amongst draws, you may wish to increase the thinning, so that, for example, only one in every 5 draws is used in the calculation of coefficients.

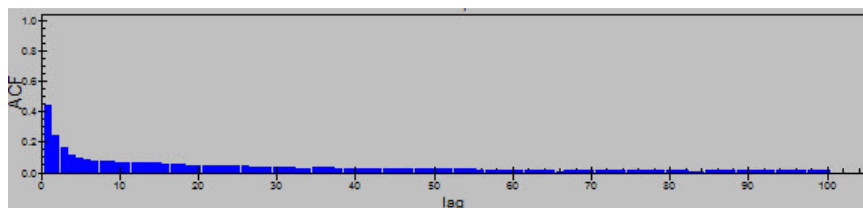
Once the model has finished running, the next step is to closely examine the MCMC diagnostic statistics and graphs, in order to determine whether or not further iterations are required. The most important of these statistics is the Rafferty-Lewis statistic ( $N_{hat}$ ) which will indicate the suggested run length required to achieve reliable co-efficient estimates. For more complex models, with two or more levels, many predictor variables, interactions, or random slopes, the suggested chain length may be in the many of millions. Graphs of the stored updates of parameters will also provide a clue as to the number of further iterations required. The desired outcome is a graph of random draws from the posterior distribution, that is, one exhibiting no hints of a pattern. Figure 1 below provides examples of a desirable versus non-desirable graph, where further iterations would be required.

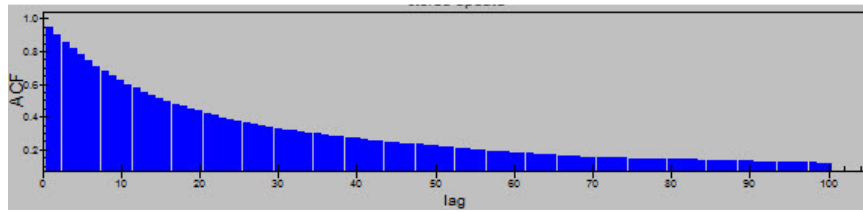
Figure 4.1 Random vs. Non-random Parameter Draws



The top graph is desirable over the lower graph as it demonstrates a nearly random oscillation in the value of the parameter, whereas the bottom graph clearly shows a pattern of peaks and troughs. In addition to the above graphs, the graph of the Auto-correlation function (ACF) is useful in establishing whether or not there is a high level of correlation occurring between draws. If a high level is present, re-running the model with thinning set to a higher value (5 is usually satisfactory) is suggested. Figure 4.2 below again demonstrates the difference between a desirable and undesirable graph. Whereas the desirable upper graph shows a midsize correlation of approximately 0.4 to begin, declining further to a low, albeit steady correlation of  $<0.05$ , the second graph suggests a very high initial correlation of close to 1, with a persisting correlation in excess of 0.2, suggesting further thinning is needed.

Figure 4.2 Low Correlation and High Correlation ACF Graphs





The graphs and diagnostic statistics must be checked for each variable included in the model, with the variance parameters often the most difficult to fit, requiring the greatest chain length. That being said, it is possible eventually to reach a model with reliable estimates, at which the DIC may be calculated and compared with the DIC for the null or previous model. A detailed description of the DIC is provided in the next section, followed by a discussion of variance partitioning in multi-level models.

#### 4.1.6 Assessing Model Fit

Another advantage of MCMC estimation over quasi-likelihood techniques is the availability of model fit statistics which are normally unavailable for logistic models. The most commonly used indicator of model fit in MCMC is the Diagnostic Information Criterion (DIC), lower values of which estimate the model that will make the best predictions. DIC is derived from Akaike's criterion (AIC), a likelihood-based measure for comparing non-nested models (Jones et al., 2010). This deviance statistic is equal to -2 times the natural log of the likelihood function and serves as a measure of lack of fit between the model and the data (Browne, 2009). Interpretation is simple: the smaller the deviance the better the model fit. As DIC takes into consideration model complexity (the number of parameters) the value will be greater for models with, for example, more than one level or many random coefficients. That being said, the value itself is in no way directly interpretable, and is thus only valuable for comparing two or more nested models (Johnson, 2010). Furthermore, it is difficult to say what exactly constitutes an important or significant difference in DIC. Generally speaking, differences greater than ten will typically exclude the model with the higher value, and whilst differences between 5 and 10 are still substantial, values less than five are questionable and may warrant further investigation (Browne, 2009).

DIC for a binomial model is calculated as:

$$D = -2\sum[\gamma_i \log(p_i) + (1 - \gamma_i) \log(1 - p_i)] \quad (4.6)$$

Where  $p_i$  is the predicted value for observation  $i$ .

At this point, once a model has achieved a DIC value of significantly less than the null or previous model, one may be interested in calculating the amount of variance attributed to the higher levels in the model. This is done through the process of variance partitioning.

#### 4.1.7 Partitioning Variance in Logistic Multi-Level Models

As mentioned previously, one of the primary incentives for the use of multilevel modelling is the ability to model dependency between observations drawn from a common source. Multilevel modelling as a method accounts for this relationship by partitioning the total variance in the data into variation due to higher level units and the level one variation that remains (Goldstein et al., 2002). So, for example, in the present research I will consider the probability of victimisation with different geographical units and thus we will partition the variation into variation between and variation within the higher level units (intermediate geographies).

In order to fully grasp the partitioning of variance, a brief description of the variance components used within multi-level models is advantageous. Variance components are simply the model parameters, also sometimes referred to as random effects, used to indicate both within-group and between-group variability in the outcome. Each level of analysis in a model will have its own variance component where, for example, variance at level two is denoted as  $\sigma_{w0}^2$  and variance at level three is denoted as  $\sigma_{v0}^2$ . Compared to linear models, when analysing binary data there is no level one variance component available in the multi-level logistic model due to the level one variance being heteroskedastic and completely determined by the expected value, it is therefore unidentified and not included in the model (Johnson, 2010). This means that the standard formulas for calculating indicators of variance, such as the Intra-class correlation (ICC: the correlation between the  $y$  values of two randomly selected individuals from the same group in linear models) and explained variance at level one cannot be directly implied in the case of logistic models (Johnson, 2010). As such, the

more convenient summary of the significance or importance of neighbourhoods in logistic models is the proportion of the total variance accounted for, commonly referred to as the variance partition coefficient (VPC). VPC measures the proportion of total variance that is due to differences between groups. It ranges from 0 (no group differences) to 1 (no within-group differences) but is typically reported as a percentage, that is, if the VPC is equal to 0.2 for example, we would say that 20% of the variation is occurring at the second level, or between groups.

To calculate VPC we simply compute the ratio of the level two variance to the sum of the level one and level two variances. Keeping in mind that the level one variance is unavailable in logistic models, the standard logistic distribution of  $\pi^2/3 = 3.29$  is used as a substitute and taken to be the level one variance, resulting in the below formula,

$$VPC = \sigma_{u0}^2 / 3.29 + \sigma_{u0}^2 \quad (4.7)$$

In the case of a three level model, this formula is simple extended to include the relevant level three parameter,  $\sigma_{v0}^2$ . The resulting VPC indicates the amount of variance in the model attributed to differences between groups at the upper level of aggregation i.e. level 3.

$$VPC = \sigma_{u0}^2 / 3.29 + \sigma_{u0}^2 + \sigma_{v0}^2 \quad (4.8)$$

It is worth noting however that there is still some debate (see Goldstein et al., 2002) concerning the use of VPC in logistic models, and it is thus encouraged that interpretation should be made cautiously.

In summary, this section has presented a number of advantages relating to why, in the present analysis, it is preferable to use multi-level models over traditional, single level regression techniques. The procedure involved, the methods of estimation, assessing model fit and variance partitioning have also been covered.

#### 4.2 Qualitative Analysis

In this section we will move on to discuss the methods of qualitative analysis employed, the purpose of which, if we recall our aims and objectives as well as the steps outlined to achieve them, is to consider the observations and opinions self reported by victims thus identifying those variables which are the key determinants of victim's experiences.

The in depth information gathered in this style will thus either compliment or contrast with the quantitative results achieved in the manner described in the previous section, yet, either way, will serve to add depth and substance to the project overall. To begin, this section will describe in detail the qualitative methodology employed in the collection and analysis of interview data. An account of the recruitment of participants will be covered, followed by a discussion of the analytic framework employed. Here the discussion will focus on two influential modes of analysis: Interpretative Phenomenological Analysis and Grounded Theory. Finally, the ethical considerations and precautions required of this work will be discussed.

#### 4.2.1 Participant Recruitment

Participants were recruited through Victim Support Scotland and Scottish Government. Over the course of this PhD, I had met with VSS on numerous occasions to discuss what were obviously mutual interests as well as potential research collaborations. In return for a report of the findings, VSS employees identified clients who had recently been victimised and been contacted by the service, due to travel, funding and time restraints, only those who lived within the Edinburgh area were contacted. Once identified, participants were mailed an information form containing details of the research project, and contact details of the researcher should they wish to participate.<sup>7</sup> Two batches of 50 letters were distributed in this manner, due to a low response rate from the initial batch of letters. Scottish Government in turn provided contact details for respondents to what was at the time the current sweep of the SCJS. As the SCJS uses computer assisted interviewing conducted in participant's homes, a database of contact information is created. Names and addresses of participants are attached to the respondent file, though this of course is not available to the public. Luckily, as this PhD was part funded and part supervised by Scottish Government, I had developed a working relationship with the Justice Analytical Services Division at St Andrew's House, who, in addition to the survey company TNS-BMRB agreed to provide me with the information required to re-contact these survey respondents. Contact details were drawn from the current sweep of the survey (2010/11) rather than the 2008/2009 sweep used in the quantitative analysis as, even for this sample, due to the rolling data collection and the fact that the survey asks about incidents occurring in the previous twelve months, a considerable time

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<sup>7</sup> The information form, interview schedule and consent form are included in the appendices.

period may have passed between the incident and the re-contact. Furthermore, the guidelines on when permission to be re-contacted expired were unclear and never made explicit.

After a data sharing agreement was in place between the researcher and Scottish Government, TNS-BMRB provided a password protected file containing serial numbers and respondents contact details, which could then be linked to the standard respondent file. Once obtained, the data in the file was narrowed down by excluding non-victims, those who lived outside of the Edinburgh Local Authority area, those who were under the age of 18<sup>8</sup>, and those who were victims of petty or minor incidents such as vandalism (due to the un-likelihood of these crimes resulting in any contact with the criminal justice system or victim support, or having any significant impact).

This resulted in a contact sample of 138, of which 7 letters were returned due to the person no longer being available at the given address. Thus, together with the 100 contacts drawn from VSS, a total of 231 victims were invited to attend an interview, with a resultant 10 interviews taking place, equal to a response rate of only 4.3%. This number admittedly fell short of what I was hoping to achieve, a number closer to 20-25. However, as no one had ever previously attempted to re-contact SCJS respondents, I could not be sure of the response rate. Also, because this was not a simple survey but an invite to interview which would require victims to talk about a potentially upsetting incident, such low rates of uptake were not entirely unanticipated.

Most of the 10 interviews took place at University of Edinburgh offices, whilst two were conducted in participant's homes. Interviews lasted between 30 and 120 minutes, averaging at around 45 minutes. During the interview the discussion was guided by the interview schedule, moving from initially general accounts of victimising experiences, to very specific accounts of emotions and perceptions. The questionnaire was designed to reflect the process of victimisation outlined previously and followed in the quantitative analysis, covering not only the initial incident but also the decision to report and to use services. It revolved around four main subject areas, namely the characteristics of the incident, involvement with the police and criminal justice system, experiences with victim support services, and finally, the impact the incident had had on their lives and daily functioning. This format ensured that although the content of each interview

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<sup>8</sup> Respondents under the age of 18 were excluded from this research in order to avoid the extra ethical considerations of research with children as well as to maintain comparability with the survey based results.

varied depending on the experience of each participant, the interview format was consistent across interviews. With the participant's consent, all interviews were recorded and transcribed as soon as possible following the interview.

#### 4.2.2 Analytic Framework

The analysis of the qualitative data gathered in interview was based on the techniques used in Interpretive Phenomenological Analysis (IPA), but also incorporated aspects of other approaches including Grounded Theory. Although some renowned qualitative analysts (see Glaser and Holten, 2004) frown upon such a 'multi-method cherry picking' approach, it was felt that a combination of methods was best suited to the current project, as no one was felt to be ideally suited. For example, as it is a purely inductive approach and not meant to test hypotheses or a priori assumptions, many of the techniques of IPA were useful in understanding the experiences of victims. The method provides the opportunity for participants to tell their own stories, in their own words, in as much detail as possible; the aim being to capture and explore the meaning that victims assign to their experience (Flowers, 2008). Participants in IPA research are considered to be experts with regards to their own experiences who can offer researchers an in depth understanding of their thoughts, commitments and feelings. IPA excels at exploratory and descriptive research, and easily allows for dialogue with theory and theory development, and is useful in eliciting research for future quantitative work. Furthermore, as IPA involves the in depth analysis of a set of case studies, the results of the analysis typically do not stand on their own, but are discussed in relation to the extant literature (Swift, 2005). It was this aspect of IPA that lent itself particularly well to the current design, for in this case it was necessary to discuss the results not only in relation to the extant literature, but in relation to the quantitative modelling as well. In order to truly understand the experience of victimisation I was in need of a method that could provide a deeper understanding than the traditional survey based methods and that could help to explain victimisation phenomenon, such as non-reporting.

There were of course other aspects of IPA that made it attractive to the project. This type of analysis has proven valuable in many areas of social scientific and medical research, including but not limited to investigations of the experiences of palliative care patients, chronic illness, dementia, sexual identity and health (Reid, et al., 2005). Thus, it seemed suited to a study of victims of crime and the meaning they assign to their



experiences. Analyses usually maintain some level of focus on what is distinct (i.e. idiographic study of persons), but will also attempt to balance this against an account of what is shared (i.e. commonalities across a group of participants). The method is also highly effective with relatively small samples, as it is only possible to do the detailed, nuanced analysis associated with IPA on a small sample (Swift, 2005). Therefore typical sample sizes consist of around ten respondents, with the mean number of participants involved in IPA research to date being 15 (Brocki and Wearden, 2005). Furthermore, as IPA aims to better understand the decisions that people make, it was perfectly suited to investigating influences on victim's choices to either report a crime or not, as well as to make use of services. Participants are given a chance to express their views, and to make sense of their personal and social world whilst the researcher in turn attempts to make sense of the participants' experiences and concerns.

IPA researchers do not attempt to verify or negate specific hypotheses established on the basis of the extant literature; rather they construct broader research questions which lead to the collection of expansive data. However, as I did in fact have a set of hypotheses to be tested via both the quantitative and qualitative aspects of this research, it was necessary first to clearly state that the approach was not purely phenomenological, and secondly, to bolster the analysis with a methodology that would allow for this. Additionally, although I encouraged participants to do most of the speaking, asking mostly follow up questions and prompting for more information, I did follow a schedule in order to ensure as much information as possible was gathered. In contrast, a purely IPA approach would probably have consisted of a single interview question asking something along the lines of 'Can you tell me about your experience of crime?' It is possible that this technique may have resulted in the same information being acquired, but many participants did not spontaneously mention things like their experiences with the police or victim support services, resulting in the need to refer back to the prepared interview schedule. Thus, the need to test hypotheses and elicit data on specific topics required the use of an interview schedule, resulting in the present research not being entirely inductive in nature. For that reason, certain aspects of Grounded Theory were integrated into the analytic framework.

Although the term Grounded Theory should technically only be used to refer to studies in which data collection and data analysis are conducted concurrently alongside theoretical sampling where emerging analysis guides the collection of further data (which was not the case here); there is no claim here of a 'pure' Grounded Theory,

simply an influence. Specifically, the influence lies in the idea that theory shapes the general interpretation of data; that codes do not emerge from the data uninfluenced by existing theory, and that this interpretation in turn informs the development and redevelopment of theory in a process that involves an ongoing dialogue between data and theory (Ezzy, 2002). In Grounded Theory, pre-existing theory is not used to determine how observation is done, but to inform the process of observing through suggesting general social processes or rules that may apply in particular observations. This occurs through the process of abduction, described as a 'creative leap of the mind', a sudden understanding of how a particular event fits into a broader picture of explanation (Ezzy, 2002). This sophisticated approach to the coding of data; mixing both inductive and deductive methods, aims to develop an emergent fit between the data and a pre-existing theory that might suitably explain the phenomenon under investigation. This however does not require one to be enslaved to existing theory, there is still freedom to generate novel categories and themes, or alternatively adopt all existing ones, or, perhaps even more likely, some combination of the two, ideally resulting in a more sophisticated understanding of the experience in question. Personally, I experienced this 'sudden understanding' when I realised that interview respondents were describing exactly some of the techniques of selective assessment described by Taylor et al., (1983) and the symptoms of crisis described by Bard and Sangrey (1978). The process of developing an emergent fit did however involve negotiating between categories that emerged in analysis and knowledge of categorical schemes utilised in the relevant research and theory. According to Ezzy (2002) the challenge in this case is to avoid the knowledge of existing theory forcing the analysis of the data into these pre-existing categories, whilst constructing the emergent theory so as to fit both the new data and the relevant concepts from the extant research. The eventual outcome of all these analytic and evaluative processes is a set of themes, often organised into some form of structure, the intermediary however, is the process of coding.

#### 4.2.3 Coding

In qualitative analysis coding is, simply put, the process of defining what the data are all about. It is the identification of themes or concepts in the data. Coding of the interview transcripts, as in most forms of qualitative analysis, was broken down into three steps

or stages, consisting of open or exploratory coding, secondary or axial coding and third or theoretical level coding or analysis.

The first stage in the coding process began early, during transcription. Once the interviews were transcribed (by the researcher) they were read and re-read, with the on-going addition of exploratory codes. This initial phase of coding is essentially the process of highlighting any and all points of interest within the transcript, focusing on key words, events, and experiences as well as noteworthy terms, acronyms, assumptions, and particular turns of phrase (Strauss and Corbin, 1990). This involved the line by line and word by word scrutiny of the transcript as a way to generate an emergent set of themes along with their respective properties by naming and categorizing phenomena through close examination of the data.

As the coding scheme became more developed new forms of coding, referred to as secondary, axial or selective coding, were used to enable the development of an argument, or central story, around which the analysis was organised. This stage is referred to as (see Ezzy, 2002) the process of 'coding the codes'; searching for emergent themes within each transcript, as well as recurring themes across the group of participants. This process effectively moves the analysis away from the descriptive and general, towards possible detailed analytical interpretations with the aim being the integration of codes around the axes of central categories. Here the task was to ask questions of the underlying concepts and meanings and the way they fit together. That is, to specify a category in terms of the conditions that give rise to it; the context (its specific set of properties) in which it is embedded. In Grounded Theory, this is achieved via the process of constant comparison; considered central to the coding process, it requires that as events and incidents are noted, they should be compared against other occurrences for similarities and differences (Glaser and Holton, 2004).

Finally, third level coding was used to construct a model of understanding, by looking for coherence, differences and hierarchical structures across previously established themes or codes. Often referred to as theoretical coding, this process involved the identification of the core category or story around which the analysis focused, and relating all other categories to that category (Strauss and Corbin, 1990). Essentially, the idea is to develop a single storyline around which all else is anchored. This required deep thought about the relationships amongst emergent themes, connections and patterns, as well as flexibility in the adaptation of knowledge or theory.

Knowing when to stop analyzing may be the most difficult aspect of qualitative analysis as it will always be possible to discover new information in the data, but saturation was considered complete when the coding that had already been completed adequately supported and filled out the emerging theory.

#### 4.2.4 Ethical Considerations

Due to the inherent potential for psychological distress during the recollection of incidents of victimisation, two levels of ethical approval were sought and obtained from the University of Edinburgh Ethics Committee prior to the commencement of the interview based portion of the research. A number of steps were taken to ensure both the psychological wellbeing of participants as well as the protection of privacy and anonymity. The initial letter sent out to potential participants included an outline of the aims and objectives of the project, as well as a brief outline of the type of questions which would be asked in the interview. At the time of interview, each participant was again verbally informed about the goals of the project, and asked to sign a consent form indicating that they had been informed of their rights as participants in the study. That is, that they were free to withdraw from participation at any point and without penalty, and that they did not have to answer any questions they did not wish to do so. Participants were also asked for their permission to tape record the interview. Further considerations included ensuring the privacy of participants and anonymity of interview recordings and transcripts. This was achieved by storing only one version of recordings on a password protected computer, accessible only to the primary researcher. During the transcription process, any evidence of identity was removed, with participants being assigned an identity number. Further information provided, such as street names, places of work etc, which could potentially be used to identify a participant, were also removed from the written transcriptions.

As much as was possible was done to ensure the comfort of participants during the interview; this included providing tea and coffee, as well as a relaxed and friendly environment. During the interview the comfort and stress levels of participants were closely monitored by paying close attention to body language, tensions and tone of voice, as well as more obvious signs of distress such as tearfulness. If participants did become upset they were offered to take a break, a drink of water or a tissue et cetera. However, no participant ended the interview early due to discomfort. At the close of

interviews, participants were thanked for their time and effort, and asked if they had any questions regarding the interview. Finally, they were offered contact information for Victim Support Scotland if they felt they would like to discuss the matter further with a support professional.

## Summary

This chapter has provided an overview of the analytic techniques employed in this research. It has highlighted the benefits of multi-level models over conventional regression methods as well as the enhanced performance of MCMC estimation over likelihood based approaches. It has also laid out the steps followed in the analysis, and will thus provide a framework for the results of models presented in the following chapter. In the discussion of the qualitative aspects of this research, this chapter demonstrated the procedures used in participant recruitment, as well as the qualitative techniques which influenced the analysis; results of which will be presented in chapter six.

This chapter also demonstrated how each method was thought to be the best suited to the aims at hand. Multi-level modelling was shown to be best suited to the analysis of hierarchical survey data, and IPA (with a hint of Grounded Theory) was shown to be the best option for uncovering the lived experiences of crime victims. Together, these two seemingly drastically different approaches to the research combine to produce a far more coherent picture of the process of victimisation than has previously been available. The next chapter will present the results of the quantitative modelling, which will in turn be followed by the results of the qualitative analysis. How these two approaches complement each other will be clearly demonstrated in the final chapter, where the discussion will bring them together by highlighting commonalities and differences found via the two methods.

## Chapter 5: Quantitative Results

### Introduction

This chapter will present the results from four sets of multi-level models each investigating subsequent steps or stages in the process of victimisation. The first set of models examines the initial movement from a state of non-victim to victim. By so doing, it highlights potential risk factors and key areas of interest. In addition to the results of bi-variate exploratory analysis, two fully specified binary multi-level models are presented; one exploring only victims of property crime, and one exploring victims of personal crime. Section two will move beyond the 'first hurdle' of victimisation and present the results of the investigation into reporting behaviour; here the results will again be broken down into analysis of property and personal crime. Section three will examine a model of service use by victims. Due to declining numbers at this level of the data, victims of both property and violent crimes were here analysed together. Finally, section four will present the results of a single level analysis of the factors affecting satisfaction with support services received; the number of cases at this level was insufficient to support multi-level analysis. Full details of all variables tested in each model and the theoretical underpinnings for doing so are given in the design chapter, whereas full details of the methodology and purpose of individual tests is provided in Chapter Four. This chapter will end with an over view and discussion of the all the results as they relate to the aims and objectives of the thesis, while an in-depth, hypothesis-by-hypothesis discussion of the results will take place in Chapter Seven.

### 5.1 The Risk of Victimisation

In this investigation of victimisation, the logical starting point was of course the first step in the process that has shaped this study. That is, an examination of the process of moving from non-victim to victim. As previously noted, this process is referred to as 'the first hurdle'; the second hurdle, by extension is the process of moving from the victim of a single incident to one of multiple incidents, or multiple victimisations (Hope, 2007). Due to my interest in the victim's progression through the criminal justice system, rather than the progression from single to multiple victimisations, repeat and/or

multiple victims are not examined here.<sup>9</sup> On a methodological note, it is important to point out that due to the design of the survey, it is impossible to know whether someone has been a victim previously (i.e., they may not have gone from non-victim to victim, at a point prior to the reference period). However, later analyses examining reporting, service use and satisfaction were able to include a variable measuring whether or not an incident was part of a series, thus at least taking into account multiple victims and the possibility that being repeatedly victimised will affect decisions regarding reporting and service use. As the present analysis employs only two levels, individual and neighbourhood, the series variable could not be included here as it is measured at the incident level.

Analysis was carried out separately for victims of household and victims of property crime for a number of reasons. The first being that the majority of victims assessed by the survey report being the victims of property crime; of 16,003 respondents 2259, or 14.1%, present as victims of property crime whereas only 782, or 4.9%, present as victims of personal crime (in both cases, the total number of individuals (16003) was nested within 1210 Intermediate Geographies). Thus if all incidents were analysed together the results would be biased, more closely resembling the risk of becoming the victim of a property crime. Furthermore, it was anticipated that risk factors associated with each type of crime were likely to differ. For example, a higher number of adults in a household may be expected to lower the risk of property crime by increasing guardianship; however it is unlikely that this variable would influence the risk of personal victimisation aside from domestic violence. Table 5.1 below presents the proportion of the sample who were victims; and who were victims of either property or personal crime.

Table 5.1 Proportion of Property vs Personal Crime Victims

	Frequency	Percent
Victims yes	3041	19%
Property	2259	14.1%
Personal	782	4.9%
no	12962	81%
Total	16003	100%

<sup>9</sup> An attempt was made to model victimisation risk in an ordered multi-nomial multi-level model, with 0=non-victim, and victims of 1,2,3,4 and 5+ more incidents in ranked categories. This model failed to converge likely due to the small number of cases in the higher repeat groups.

For both property and personal crime, I will start by presenting the results of the null or empty model; the purpose of which is to determine the necessity of more than one level in the model. This will be followed by the results of exploratory analysis in which all variables of interest (a full list is provided in the design chapter) were independently tested for a significant impact on the risk of victimisation. The dependent variable is thus a binary measure of victimisation, with 0 being equal to non-victim, and 1 equal to victim. The variable was derived from the 'victim flag' SCJS survey variable as it captures whether the respondent reported any incident of victimization, regardless if it was outwith Scotland or the reference period, as these factors are irrelevant in the present study and excluding such cases results in a rather sizable decrease (n=833) in the number of victims, as demonstrated in table 5.2 below.

Table 5.2 Frequency of All Crime vs Crime Covered by the Survey

Variable	Frequency	Percent
All crime derived from 'Victim Flag' Variable		
Yes	3619	22.6
No	12384	77.4
Crime within the scope of the survey only		
Yes	2786	17.4
No	13217	82.6
Total	16003	100

### 5.1.2 Property Crime: Exploratory Analysis

The first step in the analysis is again to see if two levels are in fact necessary in the analysis. This is achieved via the test of the null model where  $H_0: \mu_{0j} = 0$  and  $H_1: \mu_{0j} = \emptyset$  and was first conducted using PQL estimation, followed by the more rigorous DIC comparison using MCMC estimation. Analysis in PQL resulted in a  $\sigma^2$  value of 0.392(0.044),  $B_{0j} = -1.913(0.031)$ , and a  $VPC = 0.392/3.682 = 0.09$ . A test of the intercept resulted in a highly significant  $X^2$  value of 78.39 (1df) with  $\alpha < 0.000$ , providing justification in using two levels in the model.<sup>10</sup> Running the null model in MCMC resulted in single level DIC value of 13,030, and a two level DIC value of 12,749, an improvement of 281 where values greater than 5 are typically considered significant (Goldstein, 1995). Based on these results a two-level model was retained.

<sup>10</sup> Alpha levels of variance parameters reflect the use of one-tailed significance tests.



Tests for significant impact on victimisation risk were then conducted individually on each predictor variable. The dependent variable in this case is whether or not the respondent has been the victim of a property crime. This variable is derived from the Model 1 dependent variable, resulting in  $n = 2259$  victims (and 12963 non-victims), and is again coded in a binary manner with 0=no and 1=yes. As previously mentioned, a full list of all variables tested for significance is available in the design chapter. Table 5.3 below presents only the  $X^2$  and alpha values of those variables found to be significant when tested individually; only these variables were used in creation of the final model. The selecting out of non-significant variables was done for a number of reasons; aside from the fact that they did not exert a significant influence on the dependent variable and thus did not contribute to the variance explained by the model, with so many explanatory variables to be tested the principle of parsimony was used to determine the best fitting, simplest model. Additionally, I was somewhat limited by the computing power available. As it was, running the final models in MCMC, which include only nine variables, took upwards of five hours.

Table 5.3 Property Crime Victimisation Exploratory Analysis

	Variable	df	$X^2$	$\alpha$
Level 1	Urban/Rural	2	60.22	0.000
	Offender	1	12.19	0.000
	Number of adults in household	3	89.92	0.000
	Age	3	265.45	0.000
	Income	1	35.43	0.000
	SIMD quintiles	4	66.11	0.000
	SIMD top 15%	1	31.78	0.000
	Marital status	3	125.15	0.000
	Accommodation	2	18.90	0.000
	Time spent in local area	4	27.66	0.000
	Employment status	2	138.01	0.000
Level 2	% aged 15-24	1	19.30	0.000
	% victims	1	1151.67	0.000
	% income deprived	1	52.17	0.000
	% pensioner	1	13.37	0.000
	% dwellings flats	1	49.23	0.000
	% dwelling w/i 500m of derelict site	1	5.23	0.022
	% working age employment deprived	1	45.04	0.000
	% single adult households	1	51.97	0.000
	% dwellings detached	1	111.53	0.000
	% dwellings occupied	1	17.20	0.000

The above table presents numerous significant factors at both the individual and neighbourhood level. At the individual level, eleven variables resulted in alpha values of less than 0.000, suggesting they are highly significant. Unsurprisingly, and in accordance with the existing literature, the age variable is having the greatest effect on the risk of victimisation with a  $X^2$  value of 265.45 (3df), significant at the 0.000 level. Employment status and marital status, with  $X^2$  values of 138 and 125 respectively, were the next greatest predictors. This is again in line with the literature which would suggest these two variables are linked to the successful guardianship of property. Also related to guardianship is the variable measuring the number of adults in the household, again highly significant with a  $X^2$  value of 89. SIMD measured in both quintiles and by contrasting the 15% most deprived was also a significant predictor, as was income. The urban/rural indicator, type of accommodation and length of time in local neighbourhood were all also significant predictors. The presence of a history of offending was also significantly related to the risk of property victimisation.

At the neighbourhood level nine variables resulted in alpha values less than 0.000, and one, proximity to derelict sites, an alpha level of less than 0.05. The greatest risk factor is the percentage of victims in the neighbourhood; living in a high crime area one is more likely to experience crime. Interestingly, the percentage of detached dwellings was a significant protective factor, likely indicating wealthier, low crime communities. In contrast, communities with a higher number of single adult households, or flats as dwellings saw greater levels of risk. Income and employment deprived neighbourhoods were also at greater risk, as were neighbourhoods with a large number of residents between the ages of 16 and 25.

Although based on bi-variate tests only, these results are already beginning to paint an intriguing picture of the distribution of property crime. Deprived people living in deprived neighbourhoods seem to be at greater risk of victimisation, although some protective factors are highlighted. In order to truly test the impact of these variables all were entered into a multi-level analysis.

### 5.1.3 Property Crime: Full Model

Table 5.3 presents the results of the fully fitted model. This model was decided on in PQL, while final estimates were reached by entering the model into MCMC for more

rigorous estimation. The final model is based on the results of running 200,000 iterations in MCMC, with thinning set to 5 to minimise correlation. Examination of trajectories and MCMC diagnostic statistics for all predictor variables revealed satisfactory results, with the Rafferty-Lewis (Nhat) statistic suggesting between 27,000 and 172,000 iterations were necessary (depending on the variable) to achieve reliable results. Examination of the statistics for  $\sigma^2$  suggested between 224,000 and 144,000 iterations were necessary, however little change was observed in this parameter, so the 200,000 iterations was judged to be sufficient. It is evident in Table 5.3 how using single level analysis with hierarchical data will result in underestimation of coefficients, as nearly all the variables presented in the table showed an increase in the size of the coefficient when analysis was carried out in a multi-level structure, with further improvements resulting from the iterative based MCMC analysis. Thus, all alpha coefficients and odds ratios presented are based on the beta coefficients resulting from the model produced using MCMC.

The final model includes only nine variables, all measured at the individual level. SIMD had a highly significant negative effect for those in the three least deprived groups (3-5), meaning they had odds far less than the most deprived of being victimised. Age group remained a strong predictor in the model, though this was based on the strong protective factor of the two elder categories, those aged 55-74, or 75 and above had odds of victimisation of 0.619 and 0.313 respectively compared to the base group of 16 – 24 year olds. Somewhat surprisingly, the number of adults in the household remained significant, but with a positive effect; that is, the risk of victimisation increases with greater numbers of adults under one roof, in contrast to expectations based on the principle of guardianship. The urban/rural indicator remained significant, with the rural category having a highly significant ( $\alpha < 0.000$ ) negative relationship with victimisation, and the town category also having a non-significant effect in this direction. In complete contrast to notions of guardianship, time lived in local area had a significant increase in the risk of victimisation, with those living in their current neighbourhoods for three or more years having increases in odds of between 1.3 and 1.4. Income also led to an increased risk of victimisation. Marital status remained in the model, with negative coefficients for both those in the married/civil partner groups and those who were widowed, though this relationship was non-significant for the widowed category. Type of accommodation also remained in the model, with those not living in houses facing a

significant increase in risk. The presence of an offending history remained significant at the .05 level, with those in this category having increased odds (1.374) of victimisation.

As previously mentioned, no level two neighbourhood variables were included in the final model. Initially, the percentage of detached dwellings in a neighbourhood remained the only significant predictor at level two, with a  $X^2$  value = 21.08 (1df). However, further investigation of this variable revealed interactions between it and the rural category of the urban/rural indicator ( $X^2(1df)=4.76$ ), and with income  $X^2(1df) = 4.88$ . Thus, due to these interactions, and its overall negligible effect ( $B=-0.012(0.002)$ ) it was decided to drop this variable from the final model.

At this point, variance parameters were calculated for the final model. The VPC was calculated as  $VPC = 0.279/3.29+0.279=3.569 = 0.078$ , or 8%. This is the amount of variance attributable to the highest level in the model, in this case, IG or neighbourhood. It is unfortunately not possible to calculate the amount of variance attributable to level one, the individual in a binary logistic model as the variance is set to the constant 3.29. MCMC diagnostics however also indicated a significant improvement in model fit over the null model, with the final value of the DIC calculated as 9398, compared to the null value of 13,030, an improvement of 3632 where differences of greater than 5 are typically considered significant, meaning the model is a vast improvement over the null model (Lunn et al., 2000).

#### 5.1.4 Summary Property Crime Victimization

In this model of property crime victimisation, a two level model was found to best fit the data. This is a particularly interesting result, for as is evident above, no level two predictors remained significant in the final model; all variables of significance were measured at the individual level; with characteristics indicative of increased risk including residing in a flat in an urban area of high deprivation, being younger rather than older, being single, divorced or separated, having a history of offending, and being fairly new to the neighbourhood. In other words, when taking into account individual characteristics, the nature of the surrounding area does not increase the risk of victimisation. This despite the fact that when tested independently, many level two variables resulted in significant coefficients. So, the inclusion of level one predictor variables renders level two predictor variables negligible. It is possible that this effect is

Table 5.4 Property Crime Victimization Full Model

Respondents N=16003	Variable	Beta (SE): Single Level	Beta (SE): PQL (quasi- likelihood)	Beta(SE): MCMC	$\alpha$	Odds
	Urban (city)					
	town	-0.037(0.079)	-0.063 (0.096)	-0.063 (0.095)	0.507	0.938
	rural	-0.401(0.079)	-0.414 (0.093)	-0.417 (0.091)	0.000	0.658
	Offender (no)					
	yes	0.344 (0.153)	0.323 (0.159)	0.319 (0.161)	0.047	1.374
	Number Adult/ hh (1)					
	2	0.263 (0.080)	0.258 (0.084)	0.257 (0.082)	0.002	1.294
	3	0.425 (0.114)	0.410 (0.118)	0.408 (0.118)	0.001	1.505
	4+	0.422 (0.164)	0.402 (0.171)	0.397 (0.171)	0.020	1.487
	Age group (16-24)					
	25-54	0.006 (0.106)	0.003 (0.111)	0.002 (0.111)	0.987	1.004
	55-74	-0.454 (0.124)	-0.477 (0.129)	-0.481 (0.130)	0.000	0.619
	75+	-1.123 (0.188)	-1.149 (0.197)	-1.161 (0.196)	0.000	0.313
	SIMD (1)					
	2	-0.077 (0.077)	-0.095 (0.085)	-0.097 (0.085)	0.254	0.910
	3	-0.352 (0.085)	-0.353 (0.095)	-0.357 (0.094)	0.000	0.701
	4	-0.483 (0.085)	-0.516 (0.101)	-0.520 (0.101)	0.000	0.596
	5	-0.649 (0.098)	-0.685 (0.110)	-0.692 (0.109)	0.000	0.502
	Marital Status (single)					
	married/civil divorced/ separated	-0.228 (0.084)	-0.212 (0.087)	-0.210(0.086)	-0.015	0.810
	widowed	0.072 (0.084)	0.074 (0.088)	0.073(0.087)	0.062	1.076
	Accommoda tion (house)					
	flat	0.168 (0.065)	0.160 (0.070)	0.160 (0.068)	0.020	1.173
	other	-0.743 (0.642)	-0.811 (0.637)	-0.969 (0.664)	-0.145	0.378
	Time in Area (1)					
	2	0.181 (0.150)	0.183 (0.156)	0.183 (0.155)	0.237	1.202
	3	0.295 (0.127)	0.335 (0.132)	0.338 (0.131)	0.010	1.403
	4	0.313 (0.126)	0.343 (0.131)	0.345 (0.131)	0.008	1.413
	5+	0.290 (0.115)	0.325 (0.120)	0.328 (0.119)	0.006	1.389
	Income	0.082 (0.019)	0.083 (0.020)	0.083 (0.020)	0.000	1.086
Level 2: N'hood	n/a					
$\mu_{0j}$		n/a	0.273 (0.046)	0.279 (0.052)	0.000	
DIC null=13,030		n/a	n/a	9398		

due to the fact that there are many level one variables which are accounting for the bulk of variance in the model. This conclusion is supported by the fact that the amount of variance accountable to level two changes very little from the null model (9%), to the full model (8%), or the model with only the level two predictors (9%), suggesting that these predictors have little impact overall.

#### 5.1.5 Personal Crime Victimization Exploratory Analysis

The same process of model building was followed in the investigation of personal crime as in the previous model. However, in this case the dependent variable was a binary indicator (0 = no, 1 = yes) of whether or not the respondent had been a victim of personal crime as defined by the SCJS. Only 4.9%, or 782 individuals, of the SCJS sample reported having experienced an incident of personal crime. Table 5.5 gives descriptive statistics for the dependent variable.

Table 5.5 Dependent Variable: Victim of Personal Crime

	Frequency	Percent
Victim Yes	782	4.9
No	15221	95.1
Total	16003	100

Tests of the null or empty model were then carried out. In MQL  $\mu_{0j} = 0.153(0.067)$   $X^2 = 5.29$  and  $\alpha = 0.001$ , suggesting a two-level model. However, due to the likelihood of MQL overestimating this value, and the fact that the null model failed to converge in PQL, further tests were carried out using MCMC estimation. An initial run through with burn in length and number of iterations set to the default resulted in a  $\mu_{0j}$  value of 0.101 (0.079), however MCMC diagnostics suggested a greater number of iterations were required for a reliable estimate of  $\sigma^2$ , thinning was set to 5 and the number of iterations increased to 25,000 resulting in a  $\mu_{0j}$  value of 0.039 (0.029). Both of these values are obviously non-significant, however, the DIC value for the null two level model equalled 6241, whilst that of the single model was 6248. Thus it was decided to retain the two-levels for the time being (note: final model was re-run as a single level model with little to no change in the value of coefficients).

Table 5.6 Personal Crime Victimization Exploratory Analysis

	Variable	df	$\chi^2$	$\alpha$
Level 1	Urban/rural	2	30.09	0.000
	Gender	1	24.04	0.000
	Accommodation	2	51.66	0.000
	SIMD top15%	1	15.94	0.000
	Age 2 (16-24 vs else)	1	273.64	0.000
	Offender	1	64.86	0.000
	Time in Local Area	4	56.66	0.000
	# adults in household	3	50.30	0.000
	Age 3	3	374.12	0.000
	SIMD	4	52.96	0.000
	Marital status	3	247.78	0.000
	Employment status	2	118.96	0.000
Level 2	% victims in IG	1	336.78	0.000
	% 16-25	1	33.87	0.000
	% income deprived	1	42.99	0.000
	% working age employment deprived	1	38.30	0.000
	% dwellings flats	1	54.15	0.000
	% dwellings detached	1	56.99	0.000
	% dwellings SA discount	1	45.90	0.000
	% dwelling w/I 500m derelict site	1	18.45	0.000
	% pensioners	1	7.2	0.007

As in the previous model, many predictor variables had significant results when tested independently. As in the model of property crime, age is a very strong predictor of victimisation, whether measured as a binary variable with 16-24 and all others as the reference category, or as the four categories described previously. Employment status and marital status were also highly significant in predicting risk, although all level one variables presented in Table 6 including gender, accommodation, offending history, SIMD, time lived in local area, and number of adults in the household, were significant at  $\alpha < 0.000$ . A number of level two variables were also found to have a significant impact including the percentage of victims in the neighbourhood, the percentage of young people, employment and income deprived, the percentage of dwellings that were either flats or detached or receiving a single adult discount on council tax, as well as the percentage of pensioners and dwelling in close proximity to derelict sites. All of these variables, aside from the percentage of pensioners (0.007), were significant at  $\alpha < 0.000$ .

### 5.1.5 Personal Crime Victimization Full Model

Results of the final model are presented in Table 5.7 below. As in the model of property crime no level two variables remained in the model at this stage, with the level two variance changing very little from the value calculated in the null model 0.029(0.036). This final model was calculated using MCMC with the number of iterations sets to 200,000, burn-in set to 1000, and thinning set to 5. Rafferty-Lewis diagnostics were examined for each of the Beta coefficients; typically suggesting between 20 and 30 thousand iterations, thus this requirement was easily met. Diagnostics for the variance parameter,  $\sigma^2$  were however much less reliable, with the Rafferty-Lewis suggesting over 2 million iterations required. The coefficient changed very little with further iterations, and due to its negligible size, and minimal change in beta coefficients, further iterations were not carried out.

The table below presents the results from the single level, PQL, and MCMC estimation of the final model. There is little change in beta coefficients between models, likely a result of the minimal variance attributable to level two. Interesting to note here again is the zero variance found at level two by PQL estimation, whereas with MCMC, at least a small amount of variation occurred at the neighbourhood level. VPC was calculated as  $VPC = 0.029/3.319 = 1\%$ , and a comparison of the null DIC (6248) to that of the fully fitted model (5678) resulted in a sizeable improvement of 570 points, again suggesting the final model to be hugely preferable to the null model.

The odds of personal victimisation were substantial, and highly significant (2.210) for those who had a history of offending behaviour, the theoretical implications of which will be discussed further below. The strength of the negative relationship between victimisation and age increased with age; with members in each successive age group having further reductions in risk. Being unemployed also had a significant increase in the risk of personal victimisation, as did being in the top two quintiles of SIMD deprivation. However, being in the bottom two quintiles, those least deprived, had a significant protective effect. Being divorced or separated as opposed to married also increased risk, though this relationship was not significant in the model of property crime, whilst being widowed also decreased the risk of personal crime only. Being female, living in a rural locale, being over the age of 24 and being married all had a significant negative relationship with victimisation.



Table 5.7 Personal Crime Victimization Final Model

Respondents N= 16003	Variable	Beta: Single- Level	Beta: Multi-Level (PQL) quasi- likelihood	Beta: MCMC	$\alpha$	Odds
	Urban (city)					
	town	-0.007(0.112)	-0.015 (0.114)	-0.010 (0.114)	0.927	0.989
	rural	-0.292(0.114)	-0.263 (0.117)	-0.295 (0.120)	0.025	0.743
	Offender (no)					
	yes	0.793(0.167)	0.794 (0.168)	0.793 (0.170)	0.000	2.210
	Age group (16-24)					
	25-54	-0.867(0.105)	-0.813 (0.112)	-0.871 (0.112)	0.000	0.418
	55-74	-1.796 (0.153)	-1.729 (0.161)	-1.806 (0.160)	0.000	0.164
	75+	-2.405 (0.301)	-2.340 (0.306)	-2.437 (0.309)	0.000	0.087
	Marital status (single)					
	married/civil	-0.456 (0.102)	-0.445 (0.116)	-0.455 (0.117)	0.000	0.634
	divorced/ separated	0.262 (0.112)	0.260 (0.114)	0.244 (0.113)	0.022	0.562
	widowed	-0.560 (0.242)	-0.535 (0.244)	-0.575 (0.244)	0.025	
	Gender (male)					
	female	-0.221(0.078)	-0.210 (0.078)	-0.221 (0.079)	0.008	0.801
	Employment (yes)					
	unemployed	0.093 (0.157)	0.082 (0.185)	0.089 (0.158)	0.632	1.093
	inactive	-0.223 (0.094)	-0.228 (0.094)	-0.224 (0.093)	0.014	0.799
	SIMD (1)					
	2	0.066 (0.106)	0.076 (0.106)	0.066 (0.106)	0.472	1.068
	3	-0.094 (0.117)	-0.077 (0.118)	-0.093 (0.117)	0.504	0.911
	4	-0.379 (0.131)	-0.362 (0.132)	-0.381 (0.131)	0.005	0.683
	5	-0.362 (0.132)	-0.338 (0.134)	-0.362 (0.134)	0.011	0.695
Level 2: N'hood	n/a	n/a	n/a	n/a		
$\mu_{0j}$			0.000 (0.000)	0.029(0.036)		
DIC null=6248				5678		

### 5.1.6 The Risk of Victimization: Discussion

The two models presented above provide some interesting clues as to the nature of victimization in Scotland. Across the models, the amount of explanatory power allocated to the neighbourhood level varies substantially, from 8% in the household crime model, to less than 1% in the personal crime model. From a theoretical point of view, it is not surprising that neighbourhood is having the greatest effect in the model of household crime victimization as personal crimes are less likely to occur in the home

(excluding domestic violence) and more likely to occur in areas such as city centres (Page et al., 2009). This is especially the case where, as in the present dataset, the vast majority of personal crimes are incidents of petty assault. Past research which employs similar methodology (Tseloni, 2006; Rountree et al., 1994) has tended to focus on households at the micro level rather than individuals, and has also tended to find significant effects of neighbourhood level variables. For instance, Tseloni and Pease (2010) found 'the number of property crimes which are experienced by two randomly chosen households living in a randomly selected area are substantially correlated at 0.33' (p.141). So why the difference in the Scottish data? Here, not only are neighbourhood level explanatory variables of little or no significance in any of the models, it appears that the explanatory variables act in a similar fashion across intermediate geography.

In the two models presented thus far, level one, or individual risk factors seem to account for the bulk of variation in the risk of personal crime, with the influence of neighbourhood accounting for between 1-8 percent. Thus, the models of crime victimization may be seen here as lending greater support to Routine Activity or Lifestyle theories of victimization rather than Social Disorganization. However, it is worth keeping in mind that the level two variables, especially the percentage of victims, people aged 15-24 and the percentage of income deprived, tended to be highly significant when entered without any level one variables.

This is an interesting finding from a theoretical standpoint, where community and neighbourhood characteristics are thought to play a major role in the risk of victimisation. For instance, Trickett et al., (1995) found that high crime neighbourhoods also tended to be the most deprived. This finding however does not completely contradict this perspective, as the results indicate that two levels were still providing the best fit to the data, thus there is still an effect of neighbourhood in the model; it is possible that the variables included here at this level are simply not capturing what it is about neighbourhoods that is important when estimating the risk of victimisation. It is also possible that although level two variables are significant on their own, individual characteristics simply outweigh the impact of community when it comes to risk.

There is also some evidence of the impact of community in the variables measured at the individual level however. For example, the urban/rural variable could arguably be seen as a neighbourhood characteristic, which does show city dwellers to be at greater

risk. Furthermore, the results of the SIMD variable support the proposition of a link between deprivation and victimisation. It could be argued further that accommodation reflects neighbourhood characteristics, with it being more likely that flats will be found in city centres and larger, detached houses more likely to be found in wealthier and/or more rural areas, which are less at risk of victimisation.

Time lived in the local area is meant to represent a sense of social mobility and cohesion; that is, a neighbourhood where people are constantly moving in and out will have lower levels of cohesion and 'neighbourliness' than another in which families have been living together for years, or possibly even many generations; the supposition being that families or neighbours who are well acquainted will act as guardians for one another, thus preventing crime. Oddly, in the model presented here, this is not the case. The greatest odds of victimisation were for those who had lived in their neighbourhood for between three and four years, with the odds then dropping slightly for those who had not moved for five or more years. It is possible however, that this finding reflects the simple matter of friendships and community involvement taking time to develop, thus the delayed onset in any protective benefit.

Generally speaking though, what are these models telling us about risk? When comparing the fully specified models for both property and personal crime, a common pattern emerges. Both models suggest a similar high risk victim profile. That is, someone who lives in an urban area of high deprivation, is young, single and is likely to have a history of offending. The models diverge only when considering variables linked specifically to the type of crime, such that variables linked to guardianship and target attractiveness are significant only in predicting property crime victimisation and variables linked to lifestyle such as employment status and gender (and a much stronger effect of offending) are linked to personal crime. This is also reflected in the considerably large amount of variance attributable to level two, or community in the model of property crime (8%). Furthermore, a similar profile for both crime types emerges at the IG level, despite these variables being discarded from the final model. An examination of the exploratory analysis shows considerable crossover in the variables that were significant when tested individually, such that a clear picture of deprivation is painted at the community level by the inclusion of the percentage of young people and pensioners, employment and income deprived living in areas with a higher concentration of flats in close proximity to run down buildings where a greater number of residents report being the victim of crime.

Finally we are left with the usual suspects of age and marital status. The model does clearly demonstrate the decline of risk with age, as those 55 and above have odds of 0.619, and those 75 and above odds of 0.313. Being married or in a civil partnership also displayed the expected protective benefit over being single, again theoretically linked to the concept of guardianship. Income in the model is also increasing the risk of victimisation, while this finding may seem controversial, it is in fact logical in the sense that we are here examining risk of household or property crime only, thus it may be assumed that those on higher incomes will possess more desirable products, making them more attractive targets for burglaries and thefts.

## 5.2 Reporting Crime to the Police

The two models presented in this section examine factors associated with the reporting of incidences of crime to the police. As such, the dependent variable in this case is a binary indicator of reporting with 0=not reported, and 1=reported. A key difference between this analysis and that of the risk of victimisation is that reporting in the SCJS is measured at the incident level, the result being the possibility of one victim reporting more than one incident (although the number of incidents reported by each respondent is capped at 5). In other words, incidents are nested within respondents (who are still nested within neighbourhoods) here creating a third level which is necessary to account for in the analysis.<sup>11</sup>

Incidences of crime reported in the SCJS are coded into one of 32 different offense types. Here, these offenses have been grouped into either one of two categories, personal or household/property offenses. A separate analysis for household crime and personal crimes was thought necessary due to the likely differences in reporting behaviour associated with each, as well as the fact that the bulk of crimes reported in the SCJS are household (n=3487) rather than personal (n=1177) crimes. Table 5.8 below shows the results of a  $\chi^2$  test (18.67, 2df), showing significant ( $\alpha=0.000$ ) differences between the two crime types in the rate of reporting. Thus, the two datasets were analysed separately. Personal crimes included assault (619), sex offences (14), robbery/theft from the person (122) and threats (422) for a total of n=1177 incidents, nested within 782 individuals, nested within 597 intermediate geographies.

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<sup>11</sup> For full details of the expansion from a two-level to a three-level model refer to Chapter 4.

Household/property crimes included housebreaking (425), vehicle theft (487), theft (803), and vandalism (1772) for a total of n=3487 incidents, nested within 2259 individuals, nested within 977 intermediate geographies. Those incidents reported which either occurred outside of Scotland or the survey's reference period were necessarily excluded as information on whether or not these incidents were reported was unavailable. Each data set was then analyzed in a similar manner, with the first step being again a test of the null model to see if the use of three levels was necessary.

Table 5.8 Cross Tabulation of Crime Type and Reporting

		Incident Reported		Total
		Yes	No	
Crime type	Personal			
	Count	681	496	1177
	% within all crimes	57.9%	42.1%	100%
	Household			
	Count	2246	1241	3487
	% within all crimes	64.4%	35%	100%
No crime/outside	Count	165	78	243
	% within all crimes	67.9%	32.1%	100%
	Total			
	Count	3092	1815	4907
	% within all crimes	63%	37%	100%

### 5.2.1 Property Crime Reporting Exploratory Analysis

As in the previous models, an initial test of the null or empty model was carried out where  $H_0: \mu_{0jk} = 0$ , with the additional element that  $v_{0k}$ , the level three variance, will also equal 0. Thus the alternative hypothesis  $H_1$  is  $\mu_{0jk} = \emptyset$  and  $v_{0k} = \emptyset$ . As previously, PQL estimation resulted in underestimates of both variance parameters, with level two significant at  $X^2 = 10.296$  ( $\alpha = 0.0012/2 = 0.0006$ ) and level three not significant, with  $X^2 = 0.089$ , ( $\alpha = 0.764/2 = 0.382$ ). MCMC estimation however resulted in a three level model with level two  $X^2 = 15.279$ , ( $\alpha = <0.000$ ) and level three  $X^2 = 3.008$  ( $\alpha = 0.082/2 = 0.041$ ). DIC for the empty single level model was 4542, whilst for the three level model DIC equalled 4418.37. Therefore, based on the MCMC estimates we safely retain the three level model.

As previously, exploratory analysis involved the testing of all possible predictor variables independently for significant impact on reporting. A full list of variables tested is available in Chapter Three; only those variables with significant results are presented here in Table 5.9. Variables at the lowest level of the model, the incident level, were again most likely to have a significant impact on reporting behaviour. Similar to previous studies of reporting (Skogan, 1988) insurance related variables were strong predictors of reporting. Relationship to the offender and emotional impact were also significant, but by far the strongest predictor was whether or not the victim perceived the incident to be a crime or not, with a  $X^2$  (1df) value of 242.98 ( $\alpha < 0.000$ ). At the individual level, only two predictors resulted in significant coefficients, whether the respondent had been the victim of violence, and the number of previous incidents. At the neighbourhood level, four variables had significant coefficients, the percentage of dwellings detached, vacant, or receiving a single adult discount on council tax, and the percentage of the population receiving income support.

Table 5.9 Property Crime Reporting Exploratory Analysis

	Variable	df	$X^2$	$\alpha$
Level 1	Was stolen property insured?	1	123.8	0.000
	Was an insurance claim made?	1	174.8	0.000
	Age of offender	3	12.34	0.005
	Ethnicity of offender	1	41.48	0.000
	Whether the offender was known to the respondent	3	9.16	0.027
	How well the respondent knew the offender	3	9.16	0.027
	Emotion felt most strongly after incident	9	140.5	0.000
	Time spent in local area	6	15.91	0.014
	Perceived as crime/or not	1	242.98	0.000
Level 2	Victim of violent crime	1	5.4	0.020
	Number of previous incidents	1	5.4	0.020
Level 3	% dwellings detached	1	6.12	0.013
	% dwellings vacant	1	6.25	0.012
	% dwellings receiving single adult discount	1	5.76	0.016
	% population receiving income support	1	4.87	0.027

### 5.2.3 Full Model Property Crime Reporting

The final model was again estimated using MCMC, where burn in length was set to 1000, thinning to 5, with a chain length of 500,000. Thinning was used due to MCMC defaults showing relatively high correlations based on the ACF (autocorrelation function) graph in trajectories. The Rafferty-Lewis statistic (Nhat) suggested a chain length of 65-70 thousand was required to achieve convergence for all parameters, thus this requirement was easily satisfied. No level three variables were retained in the final model, with the majority of predictors still found at the incident level including: whether or not the respondent was threatened, whether or not they had insurance, whether or not the incident was perceived as a crime, the presence of anger following the incident, as well as fear, shock, a loss of confidence, and difficulty sleeping. The only variable retained at the individual level was whether or not the respondent had been a victim of violence, which had a significant negative effect on reporting.

Table 5.10: Full Model Property Crime Reporting

Property Crimes N=3488	Variable	Beta Single Level (SE)	Beta Multi-Level PQL (Quasi- likelihood)	Beta: MCMC	$\alpha$	odds
	Insurance (no) yes	0.712 (0.082)	0.899 (0.099)	1.056 (0.139)	0.000	2.873
	Perceived as crime (no) yes	1.251 (0.099)	1.368 (0.106)	1.817 (0.177)	0.000	6.155
	Anger (no) yes	0.314 (0.085)	0.475 (0.093)	0.480 (0.128)	0.000	1.616
	Shock (no) yes	0.516 (0.119)	0.681 (0.143)	0.798 (0.184)	0.000	2.222
	Fear (no) yes	1.014 (0.218)	1.245 (0.258)	1.428 (0.321)	0.000	4.169
	Lost confidence/ vulnerable (no) yes	0.765 (0.227)	1.259 (0.38)	1.181 (0.34)	0.001	3.255
	Difficulty sleeping (no) yes	0.726 (0.305)	0.981 (0.27)	1.032 (0.439)	0.019	2.800
Level 2: Individual	Victim of Violence (no) yes	-0.348(0.144)	-0.416(0.156)	-0.518 (0.225)	0.022	0.596
Level 3:	n/a					
$\sigma_{u0}^2$		n/a	0.775 (0.231)	2.476 (0.795)	0.000	
$\sigma_{v0}^2$		n/a	0.464 (0.192)	0.498 (0.361)	0.083	
DIC null=4418		n/a	n/a	3392		

DIC for the final model equalled 3327.29, which when compared to the empty three level model (4418), resulting in an improvement of 1091.08. The VPC for level two was calculated as  $2.476/3.29+2.476 = 0.429$ , or 43%. For the third level, the amount of variance equalled  $464/3.29+2.476+.464 = 0.074$ , or 7%.

#### 5.2.4 Personal Crime Reporting Exploratory Analysis

An initial test of the null or empty model using both PQL and MCMC was carried out. In PQL the test of  $\mu_{0jk} = X^2 21.067$  and  $v_{0k} = 0.00$ . In MCMC the test of  $\mu_{0jk} = X^2 7.186$  ( $\alpha = 0.004$ ) and  $v_{0k} = X^2 3.94$  ( $\alpha = 0.0234$ ). The DIC for the null single level model equalled 1604.42, whilst the three level model equalled 1441.28. Based on these results, a three level model was retained.

Exploratory analysis resulted in a substantial number of variables presenting with significant impact when tested independently, again most of which occurred at the incident level. As in the previous model, whether or not the incident was perceived as a crime had a highly significant effect. Four out of five variables pertaining to the seriousness of the incident were significant, with the presence of a weapon and injury having the strongest effect. As in the model of property crime, emotion variables were again highly significant, with the variable 'having difficulty sleeping' having the highest  $X^2$  value in the model. Other emotion variables with significant values included the presence of shock, fear, depression, anxiety, being tearful/crying, and losing confidence/feeling vulnerable. Four further variables had significant effects at this level; they were those measuring victim's perceptions of crime in Scotland, and problems with the police, noisy neighbours, or immigration within the previous three years.

At the individual level only six variables had a significant effect on reporting. These were gender, the urban/rural indicator, the number of adults in the household, age, income and employment status. At the community level an additional six variables were found to have significant effects, though again the effect sized were comparatively smaller than those in lower levels. Here we see that the percentage of young people (16-24), income deprived, victims, employment deprived, on income support, or pensioners were all significant predictors of reporting.



### 5.2.5 Personal Crime Reporting Full Model

The final model was estimated using MCMC and includes variables representing the perception of the incident as a crime, the presence of a weapon, injury, fear and difficulty sleeping at the incident level, gender at the individual level, and the percentage of victims and percentage of income deprived at the neighbourhood level. For the final model burn in length was set to 1000, and thinning = 5, chain length = 500,000, storing every 5<sup>th</sup>, equalling 100,000 iterations. Thinning was used due to MCMC defaults showing relatively high correlations based on the ACF (autocorrelation function) graph in trajectories. The Raftery-Lewis statistic (Nhat) suggested a chain length of between 43 and 73 thousand was required to achieve convergence for all parameters.

DIC for the final model was calculated as 1206, an improvement of 235 over the empty model. The VPC for level 2 =  $7.269/7.269+3.29+.186 = 7.269/10.745 = 0.677$  suggesting that almost 68% of the variance in the model is accountable to differences at the individual level. Compare this to the calculation computed using PQL estimation:  $0.983/0.983+3.29 = 0.983/4.273 = 0.23$ , or 23%.

This massive difference serves to reinforce the importance of using MCMC estimation when estimating complex models. This is again demonstrated when calculating VPC for level three, which = 0 when using PQL, and  $0.186/0.186+3.29 = .186/3.47 = 0.053$ , or 5% in MCMC. Parameter values and their respective standard errors and alpha values for the three different types of estimation employed are presented in Table 5.11 below.

From the coefficients, odds ratios were calculated, these present the odds of reporting a crime based on a particular predictor while all others are held constant. Thus, if a victim perceived the incident as a crime, they had odds nearly 14 times greater of reporting than someone who did not. Whether or not the victim had difficulty sleeping after the incident also resulted in a highly significant increase in the odds of reporting, with those experiencing this problem having odds of reporting almost seven times greater than those who did not. If the incident involved a weapon the odds were more than twice as likely that it would be reported as if no weapon was involved. If the victim was injured they were almost twice as likely to report the crime. If the victim was fearful after the incident the odds were 2.6 times greater that they would report. Females were also almost twice as likely to report as males. For each one unit increase in the percentage of income deprived in a neighbourhood, the odds increase by a factor of 1.02,

an increase of  $(1.02-1) \times 100 = 2.77\%$ , similarly, the more victims in a neighbourhood decreases the odds of reporting by a factor of 0.170.

Table 5.11 Personal Crime Reporting Exploratory Analysis

	Variable	df	$\chi^2$	$\alpha$
Level 1	Whether offender had a weapon?	1	24.62	0.000
	Whether offender used force?	1	8.02	0.004
	Whether respondent was injured?	1	20.05	0.000
	Whether respondent was hospitalized?	1	10.65	0.001
	Emotion felt most strongly after the incident	9	33.74	0.000
	How much of a problem is crime in Scotland?	4	21.75	0.000
	Problems with unfair treatment by the police in the past 3 years?	1	9.05	0.002
	Problems with neighbours in the last 3 years?	1	6.13	0.013
	Problems to do with immigration in the last 3 years?	1	18.58	0.000
	Respondent felt shock	1	5.57	0.018
	Respondent felt fear	1	36.44	0.000
	Respondent felt depressed	1	29.85	0.000
	Respondent felt anxious/had panic attacks	1	25.90	0.000
	Respondent lost confidence/felt vulnerable	1	20.59	0.000
	Respondent had difficulty sleeping	1	55.00	0.000
	Respondent was crying/tearful	1	37.00	0.000
	Perceived as crime?	1	105.63	0.000
Level 2	Gender	1	19.69	0.000
	Urban/rural	2	10.84	0.004
	# adults in household	3	10.30	0.016
	Age	3	21.80	0.000
	Income	1	24.18	0.000
	Employment status	2	15.94	0.000
Level 3	% 16-24	1	3.89	0.048
	% income deprived	1	8.62	0.003
	% victims	1	9.34	0.002
	% employment deprived	1	7.00	0.008
	% income support	1	6.77	0.009
	% pensioners	1	5.72	0.016

Table 5.12 Full Model Personal Crime Reporting

Personal crime incidents = 1177	Variable (base)	Beta Single-level (SE)	Beta PQL (SE)	Beta MCMC (SE)	$\alpha$	odds
Level 1 Incident	Weapon (no) yes	0.445 (0.176)	0.511 (0.215)	0.729 (0.343)	0.033	2.073
	Injury (no) yes	0.317 (0.149)	0.426 (0.181)	0.673 (0.291)	0.021	1.961
	Fear (no) yes	0.237 (0.157)	0.364 (0.194)	0.664 (0.324)	0.040	1.943
	Difficulty Sleeping (no) yes	0.951 (0.230)	1.096 (0.288)	1.534 (0.468)	0.001	4.639
	Perceived as crime (no) yes	1.355 (0.135)	1.723 (0.168)	2.638 (0.425)	0.000	13.983
Level 2 Individual	Gender (male) yes	0.328 (0.135)	0.420 (0.171)	0.642 (0.292)	0.028	1.899
Level 3 N'hood	% income deprived	0.014 (0.006)	0.016 (0.008)	0.025 (0.013)	0.064	1.025
	% victims	-1.055 (0.452)	-1.162 (0.570)	-1.593 (0.948)	0.093	0.203
	$\sigma_{u0}^2$	n/a	1.373 (0.277)	7.269 (2.845)		
	$\sigma_{v0}^2$	n/a	0.000 (0.000)	0.186 (0.232)		
	DIC null = 1441	n/a	n/a	1206		

### 5.2.6 Summary Reporting

In these two models of reporting behaviour a number of findings are of particular interest considering the hypotheses under investigation. First of all, it is here that some possible patterns begin to emerge in the data, where both victims of property and personal crimes who perceive the incident to be a crime and have some psychological or emotional consequences have greater odds of reporting. Substantial between-neighbourhood differences are also apparent in these two models, where either 5 or 7 percent is found at the neighbourhood level. Finally, in addition to some findings in support of previous research, such as the importance of the seriousness (as indicated by injury or the presence of a weapon) of the crime in personal incidents, or having insurance when it comes to property offences (see Skogan, 1988) the two models here

clearly show how very important the emotional reactions to crime are. In both models, though particularly in the case of property crime, we see fear, difficulty sleeping, shock, anger, and feeling vulnerable all having a significant impact on the likelihood of reporting. These findings will be discussed further in the conclusions at the end of this chapter as well in the next chapter.

### 5.3 Uptake of Victim Services

A similar strategy of model building was employed in the investigation of the use of victim support services, bar a few key differences. First of all, the dependent variable in this analysis was again a binary indicator, but here reflected whether or not the victim received support from any service provider following the incident. Service providers covered by the survey include: Victim Support Scotland, Victim Information and Advice (VIA), Citizen's Advice Scotland, Rape Crisis, the Samaritans, Women's Aid, Police Liaison Officers, and the Witness Service. The total number of incidents reported is 4995, although only 378 incidents resulted in the victim receiving any support services (as it is possible for each victim to experience more than one crime, it is possible that they may receive help following one incident but not the other). Due to this small sample, it was not possible to analyze property and personal crime separately, however a number of incident level variables provide information about the nature of the crime, such as if it resulted in injury or a stay in hospital. Thus, we are left with a respectable incident sample size of 4955 cases (after 817 missing cases are taken into account) nested within 3487 individuals, nested within 1062 intermediate geographies.<sup>12</sup>

Table 5.13 Descriptive Statistics Whether or Not Victim Received Support Services

Whether or not victim received support	Frequency	Percent	Valid Percent
No	4577	79.3	92.4
Yes	378	6.5	7.6
Missing	817	14.2	n/a
Total	5772 (4995)	100	100

<sup>12</sup> MLWiN automatically ignores missing data (Rashbash et al., 2009).

Testing of the null model was carried out in MQL as PQL failed to converge. Both two and three level models were found to be significant, with a two level model ( $\mu_{0jk} = 1.51(0.256)$   $X^2 = 34.915$ ) being highly significant, but a three level model ( $\mu_{0jk}$  (becomes non sig) =  $0.268(0.325)$ )  $X^2 = 0.679$   $\alpha = 0.409$ ,  $\nu_{0k} = 1.154(0.277)$   $X^2 = 17.33$ ,  $\alpha = 0.000$ ) negating the significance of variance occurring at the individual level. Further testing in MCMC resulted in a DIC for the three level model equal to 2465.97, with  $\nu_{0k} = 2.152$  (0.445) and  $\mu_{0jk} = 0.061$  (0.044), confirming that the bulk of the variance is occurring at the neighbourhood level. This model also represented an improvement of 207.74 over the null model DIC of 2673.71 and was thus retained.

Exploratory analysis resulted in a large number of variables at all three levels having significant  $X^2$  values, which are displayed in Table 5.12. Many incident level predictors had exceptionally large  $X^2$  values (>100, 1df) especially those relating to emotional reactions to the victimisation, with fear having the largest  $X^2$  value of 122. Variables relating to the type of crime also scored highly, with injury and threats being strong predictors. Variables at level two had overall less predictive power. Variables at level three had again even less predictive power than those at level two, with all  $X^2$  values being less than ten.

### 5.3.2 Full Model Service Uptake

The final model was specified using MCMC, with thinning set to 5 and burn in length 500, due to a high correlation in the  $\nu_{0jk}$ . The final chain length was 100,000 iterations. MCMC diagnostic statistics were examined for all predictor variables still in the model, the Rafferty-Lewis statistic suggest a chain length of between 25,000 and 69,000 was need for all variables and so this requirement was easily satisfied. Furthermore, all variables had an effective sample size of between 6 and 8 thousand iterations. The level three variance coefficient results were less reliable, with the Rafferty-Lewis suggesting up to 308,000 iterations were needed to achieve a reliable result, again due to the highly correlated nature of the variance coefficients. However, as all predictor variables were reliable at this point, and little fluctuation in variance coefficient value and lack of computing power, results from the 100,000 iteration model are presented here.

Table 5.14 Service Uptake Exploratory Analysis

	Variable	df	$\chi^2$	$\alpha$	
Level 1	Series incident	1	25.07	0.000	
	Crime Type	2	105.14	0.000	
	Insurance claim made?	1	31.17	0.000	
	Number of offenders	2	15.29	0.004	
	Offender used a weapon?	1	37.52	0.000	
	Problems with the police in past three years?	1	4.61	0.031	
	Respondent was hospitalized?	1	32.75	0.000	
	Respondent was injured?	1	100.95	0.000	
	Offender used threats?	1	79.56	0.000	
	Had respondent seen any of the offenders before?	1	10.89	0.000	
	Respondent felt angry	1	4.29	0.038	
	Respondent felt shock	1	66.20	0.000	
	Respondent felt fear	1	122.00	0.000	
	Respondent felt depressed	1	84.40	0.000	
	Respondent felt anxious/panic attacks	1	88.25	0.000	
	Respondent felt lost confidence/felt vulnerable	1	109.52	0.000	
	Respondent had difficulty sleeping	1	108.45	0.000	
	Respondent was crying/tearful	1	90.58	0.000	
	Respondent felt annoyed (-)	1	5.70	0.016	
	Perceived as crime	1	44.26	0.000	
Level 2	Household composition	4	16.04	0.025	
	Prevhous	1	18.50	0.000	
	Prevviolent	1	39.60	0.000	
	Prevperson	1	23.66	0.000	
	Income	1	17.63	0.000	
	Urban/Rural	2	8.53	0.014	
	Gender	1	12.78	0.000	
	# adults in household	3	39.22	0.000	
	Marital Status	3	26.16	0.000	
	Employment status	2	11.17	0.003	
	Repeat victim of serious assault	1	9.25	0.002	
	Level 3	% 16-24	1	9.47	0.002
		% victims	1	7.16	0.007
% dwellings flats		1	9.69	0.001	
% dwellings detached		1	6.22	0.012	
% pensioner		1	6.44	0.011	

The final model included variables at all three levels, incident, individual and neighbourhood; and similar to the results of the exploratory analysis, variables at the incident level had the largest  $X^2$  values, with individual level variables having smaller

values, and the one neighbourhood level predictor having a reasonable  $X^2$ , but very small beta coefficient (-0.007). Significant variables at the incident level included whether or not the incident was one of a series of incidents, results indicating that victims of more than one incident had 1.58 the odds of seeking some kind of support. As in the previous model, variables related to the seriousness of the crime are also reflected here. That is, victims who were injured and/or threatened had odds 5 and 2 times greater than those who were not. Finally two emotional variables, fear and having difficulty sleeping were also highly significant predictors of the uptake of support services.

Table 5.15 Full Model Service Use

All crime n = 4955	Variable	Beta Single-level (SE)	Beta PQL (SE)	Beta MCMC (SE)	$\alpha$	odds
Level 1 Incident	Series (no) yes	0.349 (0.126)	0.373 (0.134)	0.497 (0.170)	0.003	1.644
	Injury (no) yes	1.208 (0.164)	1.208 (0.178)	1.654 (0.238)	0.000	5.228
	Threat (no) yes	0.745 (0.135)	0.729 (0.145)	0.957 (0.184)	0.000	2.603
	Fear (no) yes	0.765 (0.150)	0.843 (0.161)	1.159 (0.212)	0.000	3.186
	Difficulty Sleeping (no) yes	0.725 (0.183)	0.747 (0.203)	1.120 (0.273)	0.000	3.066
	Perceived as crime (no) yes	0.903 (0.137)	0.891 (0.143)	1.140 (0.179)	0.000	3.125
Level 2 Individual	Gender (male) female	0.357 (0.119)	0.341 (0.128)	0.440 (0.161)	0.006	1.553
	Age (25+) 16-24	-0.509 (0.173)	-0.518 (0.189)	-0.679 (0.238)	0.005	0.507
Level 3 N'hood	% dwellings flats	-0.007 (0.002)	-0.007 (0.002)	-0.009 (0.003)	0.003	0.990
	$\sigma_{u0}^2$	n/a	0.000 (0.000)	0.523 (0.422)		
	$\sigma_{v0}^2$	n/a	1.244 (0.219)	2.673 (0.621)		
DIC null = 2673		n/a	n/a	2108		

At the individual level being female had a significant positive effect of receiving support services; whilst being aged 16 -24 had a significant negative effect. One variable

remained significant at the neighbourhood level, the percentage of dwellings which are flats, which had a negative effect, though as mentioned previously, the beta coefficient was negligible.

DIC was calculated using MCMC estimation with a resulting value of 2108, a substantial improvement of 489 over the null model. VPC was also calculated for the final model, where for level 2 VPC was equal to  $0.523/0.523+3.29+2.673= 6.486 = 0.081$ , or 1% variance. VPC for level three equalled  $2.673/2.673+3.29 = 5.963 = 0.448$ , or 45% variance. This is an exceedingly large value for neighbourhood level variance, especially when compared to the previous models, suggesting neighbourhood is having a far greater impact on service use than on the risk of victimisation or reporting crime to the police.

#### 5.3.4 Summary: Service Use

This model of service use was similar to previous models in that incident level predictors had the greatest impact on the use of services, particularly those related to the seriousness of the crime. However, one telling difference is the considerable amount of variation occurring at the neighbourhood level despite the lack of significant predictor variables at this level. Also of interest is the striking similarity in incident level predictors between this model and the models of reporting. The emotional predictors fear and difficulty sleeping were significant here as well as in both the personal and property crime models of reporting the police, suggesting there may in fact be a pattern emerging in the data. Furthermore, both injury and threat also appeared in the models of reporting, albeit in different models. Females were also more likely to report personal crimes than their male counterparts.

Also of interest to note, despite the many similarities between this model and the models of reporting crime, whether or not the crime was reported to the police had no significant effect on the uptake of victim services. Good news for providers of services, but contrary to the findings of previous research and Victim Support's own statistics which suggest some 80% of their referrals are from the police (Pettersson, 2009).



#### 5.4 Satisfaction with Services

This final model explores factors affecting victims' satisfaction with the support they received from any of the support services covered by the survey (listed previously). The dependent variable in this case was a variable derived from the satisfaction variables already in the survey. Unfortunately it was necessary to merge the very satisfied and satisfied, or their respective unsatisfied counterparts, and lose data in the 'neither' category; however, the sample size at this point was so small (351) as to render more complex models impossible. This resulted in a binary indicator with 0=not satisfied and 1= satisfied. Descriptive statistics are provided in the table 5.14 below.

Table 5.16 Dependent Variable: Satisfied with Support

	Frequency	Percent
Satisfied with Support		
Yes	285	90.5
No	30	9.5
Total	315	100

Due to this small sample, (Units incident=315, individual=277, IG=249) it was impossible to conduct multi-level models as some IG's would have one or fewer incidents making variance estimates unreliable. MCMC was however still employed in the calculation of final model estimates though PQL could not be used in exploratory analysis again due to the fact that the model is only single level.

One new independent variable was introduced at this stage, type of support received. This variable was derived from a much more complex variable (composed of some 22 categories) in the original survey data. The derived variable contained five categories, help with reporting the incident, help with information and advice, accommodation related support, emotional support, and other. However, initial testing of this variable revealed that only the emotional support category to have any significant impact, thus a new derived variable was again created, this time a binary indicator of whether or not the victim received any emotional support. This variable was significant when tested independently ( $\alpha=0.047$ ). As in the previous two models of reporting and service use, the difficulty sleeping variable was again highly significant ( $\alpha=0.003$ ), though this time the effect was negative; all other emotion variables also had a negative effect on

satisfaction though none were significant. In fact, few of the variables tested were found to have a significant impact, and all those that did remained in the final model, presented below.

#### 5.4.2 Full Model Satisfaction

This final model was decided upon in MQL as PQL failed to converge, and finalised using MCMC. Having difficulty sleeping, receiving any emotional support, gender, and being a victim of violence were the only variables retained in the final model. Gender was the strongest predictor of satisfaction ( $\alpha=0.005$ ), with females having odds 3.26 greater of being satisfied than males. Being the victim of personal crime (as opposed to property crime) also had a significant positive effect on satisfaction, as did receiving emotional support, although this effect was only marginally significant ( $\alpha=0.05$ ). Finally, having difficulty sleeping was again retained in the final model, this time with a highly significant ( $\alpha=0.003$ ) negative impact on satisfaction.

Although it was impossible to determine VPC from a single level model, using MCMC it was still able to determine model fit by comparing the DIC of the final model to that of the null or empty model. The final model (DIC=184.64) proved to be greatly superior to the null model (DIC=215) in this case.

Table 5.17 Satisfaction Full Model

Variable	Beta (SE) MQL	Beta MCMC (SE)	$\chi^2$	$\alpha$	odds
Difficulty Sleeping (no) Yes	-1.396 (0.468)	-1.421 (0.482)	8.68	0.003	0.241
Received Emotional Support (no) Yes	0.875 (0.461)	0.931 (0.476)	3.82	0.050	2.538
Gender (male) Female	1.151 (0.419)	1.182 (0.430)	7.57	0.005	3.262
Victim of personal crime (no) Yes	1.040 (0.483)	1.110 (0.500)	4.93	0.026	3.035
DIC null= 215	n/a	184.64			

## Summary: Satisfaction

Although based on a small sample size this model has resulted in some surprising findings. For example, it is the first model in which the bulk of variance is accounted for by the third level in the model, intermediate geography, suggesting access to victim support services may not be equally available throughout Scotland. Also of interest is the role of emotional support. Whereas previous research (see Shapland, 1986) has suggested that the priorities of service providers should be practical in nature, such as providing financial assistance or help securing a property, this finding supports the alternative standpoint that victims value the emotional support they receive, and that such receipt reflects their assessment of service provisions. The negative impact of difficulty sleeping is in contrast to the positive effects this variable was having in previous models, where it increased the odds of reporting as well as service uptake. What this pattern may be indicating is that victims with more severe crime related impairments, such as difficulty sleeping, may be more prone to report a crime and make use of services, but that they are not getting the specific help they require. Such an interpretation is supported by the previous literature discussed in Chapter 2 (see Marandos, 2005; Davis, 1987) which suggests the ineffectiveness of short term crisis counselling for victims who may be in need of longer term support and counselling.

## 5.5 Quantitative Results: Summary and Conclusions

A great amount of information has been presented here, making it difficult to highlight key points and patterns emerging in the data. That being said, a few points relevant to the aims of the thesis are worth revisiting before progressing to the in-depth discussion of these results in the Chapter Seven. First of all, some links between different stages in the process are beginning to appear. Not only are we seeing the effects of a victim's perception of an incident having an ongoing effect, but also certain emotional variables such as having difficulty sleeping. Similarities across crime type are also apparent, particularly regarding the victim characteristics associated with risk and reporting.

Secondly, a review of the estimation techniques and variance parameters is in order. Where it was possible to use MCMC the results tables presented throughout this chapter show that this method consistently resulted in the best estimates of both beta coefficients and variance parameters. Furthermore, a significant amount of variation

was found across neighbourhoods characterised by intermediate geographies. Variance was found across neighbourhoods in the models of victimisation risk, though this figure was substantially higher for property crimes (8%) than for personal crimes (1%). A similar pattern was found in the distribution of variance in the models of reporting, with 8% attributable to between neighbourhood differences in the reporting of property crime, and 5% in the model of reporting personal crime. In contrast, the model of service use resulted in a substantial amount of the variance accounted for by level three, the community level (45%), with individual level variance equal to 8%.

The third point of interest to note is the importance of the emotion variables in not only the model of reporting, but of service use and satisfaction, particularly the variable measuring any difficulty sleeping, which appears in all three models. The implications of these results on victimological theory as well as practice and policy implications, in conjunction with those from the qualitative interviewing, which will be presented in the next chapter, will be discussed thoroughly in Chapter Seven.

## Chapter 6: Qualitative Results

### Introduction

The results presented in this chapter are drawn from the analysis of a small number (n=10) of in-depth interviews conducted with victims of crime. A detailed description of the recruitment process and analytic framework is provided in chapter three, with the complete questionnaire outline available in the appendix. Briefly though, the purpose of this aspect of the research was to gain a deeper understanding of the experiences of victims and the impact of crime. As such, the ten participants completed an interview which lasted on average 45 minutes; and focused on the details of the incident they had experienced, their reactions following the incident, any experience with the police or other agencies of the criminal justice system (such as the courts or procurator fiscal), their experience with support services (if any), and their feelings towards the system as a whole. The sample was drawn from the Edinburgh Local Authority Area and consisted of six women and four men, with two young males, two young females, one elderly man and two elderly women, with the remaining participants considered to be of middle age. Victims had experienced an array of crimes ranging from what may be described as aggressive vandalism and threats all the way through to robbery and severe violent assault. There was considerable range in the amount of time that had passed between the incident and interview; where for some victims the incident had occurred only three to four weeks prior, for others it had been up to twelve years in the past. Half of the sample had been victimised on more than one occasion, and every victim had reported at least one incident to the police. Most of the interviews were conducted in my office at the University, although on two occasions I visited victims in their homes. All the participants were very open about their experiences, and willing to share their insight into what had happened to them. A few became emotional during the course of the discussion, but all left in good spirits. Overall, interviewing was an immensely rewarding endeavour, the results of which helped me considerably in furthering my understanding of victimisation.

In the previous chapter the quantitative results have already begun to shed light on the hypotheses under investigation. However, the analysis of the interview data to be discussed in this chapter takes an obviously different, yet complimentary approach to answering the research questions. By hearing directly from victims it was possible for

me to probe deeper into the emotional reactions of victims not only immediately after an incident, but throughout the (often substantial) time following it and how those emotions, and the process of coping with them has affected their daily lives. Additionally, over the course of the analysis, I was again able to identify patterns; though rather than patterns of key characteristics, patterns of response and coping style appeared in the text.

Earlier, in Chapter Three, I described the process of abduction, defined as a 'creative leap of the mind'; a sudden understanding of how a particular event fits into a broader picture of explanation (Ezzy, 2002). After some considerable time wading through the transcripts, writing and re-writing interpretations, I suddenly became aware of a pattern emerging among the transcripts of interviewees. This pattern reflected a common process amongst participants; a process in which one acknowledges they have experienced wrongdoing and injustice, in other words, they have been the victim of a crime. Following this, the analysis suggested that victims may then need to make a critical assessment of their available coping resources, the outcome of which will influence how a victim reacts to their crime, as well as the decisions they make in its aftermath. In order to understand the process of abduction I experienced, a brief return to the theory which influenced this analysis may be useful. In the section below, I will briefly review those theories which have influenced the interpretation of the qualitative data, and how I have combined them to best describe the findings. The results will then be presented in such a way as to follow this new model; first, covering the feelings of inequity which commonly occurred following the incident, and secondly, describing the five mechanisms of selective evaluation by which victims may seek to avoid 'victimhood,' namely: belittling the incident, envisaging a 'worst world', making downward comparisons, deriving benefit or learning from the experience, or considering themselves to have made an exceptional adjustment. Following this, I will describe the process of coping and the stages through which victims seem to progress. The last section will show how this model might also explain the under-reporting of crime and under-use of victim services.

## 6.1 Theoretical Framework

In order to function effectively in our day to day lives, human beings must employ a certain number of beliefs about the world in which they live. Irrational though these

beliefs may be, they allow us to flourish and grow without fear. To be free of fear, people must believe in the basic principle that the world is a relatively safe place; that it is meaningful, just and ordered. They must believe also that the people who surround them are mostly good, trustworthy and not a danger to oneself. Overall these beliefs reflect a conceptual system which has been developed over time, the purpose of which is to provide practicable expectations about ourselves and our environments. Lerner (1970) provides a vivid description of the 'just world' as

*'Most people care deeply about justice for themselves and for others – not justice in the legal sense, but more basic notions of justice. We want to believe we live in a world where people get what they deserve, or rather, deserve what they get. We want to believe that good things happen to good people and serious suffering comes only to bad people.....'*

*'We do not want to believe that (incidents of undeserved suffering) can happen, but they do. At least we do not want to believe they can happen to people like ourselves – good decent people. If these things can happen, what is the use of struggling, planning and working to build a secure future for one's self and one's family? No matter how strongly our belief in an essentially just world is threatened by such incidents, most of us must try to maintain it in order to continue facing the irritations and struggles of daily life. This is a belief we cannot afford to give up if we are to continue to function.'*

Thus, when a person is faced with an unexpected and threatening experience, these beliefs about the world are challenged. Although the number of these assumptions is likely to vary according to persons involved, Janoff-Bulman and Frieze (1983) suggest people typically possess three core beliefs that are most in danger following a threatening event: the belief in personal invulnerability, the perception of the world as meaningful and a positive self view. When a person is the victim of a crime, these beliefs may be threatened, and often completely destroyed. It is this abolition of beliefs that some research suggests is responsible for the psychological distress which typically accompanies criminal as well as other forms of victimisation.

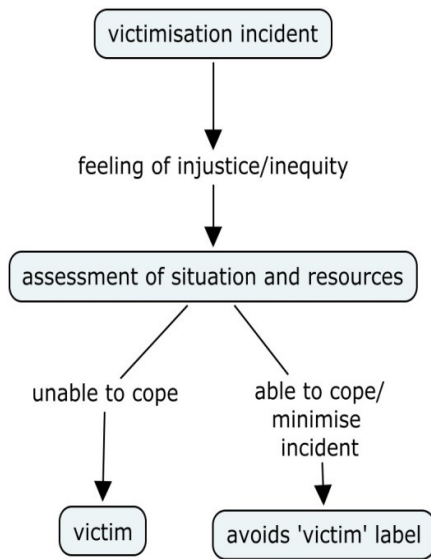


Figure 6.1 Model of the Coping Process

The model of coping displayed in Figure 6.1 begins with the initial victimising incident. This incident is likely to cause feelings of injustice and inequity as a result of the above mentioned challenges to an individual's world view. Faced with this loss of equilibrium, a victim must make an assessment of their situation. This assessment has two possible outcomes; but is dependent upon the victim's ability to either successfully cope, or employ cognitive strategies to minimise the victimisation. These strategies, discussed in more detail below, function as guardians of the world view; if successfully used, they can protect against the destruction of a person's key beliefs, avoiding the resultant psychological distress. However, if the event is distressing to the extent that one feels unable to either cope or downplay the incident, the individual has no choice but to embark on the long and challenging process of recovery, which is primarily centred on re-establishing a positive world view. This chapter will follow this model, supported by text from interviewed victims. Therefore, below, I will first discuss the feelings of injustice/inequity which may occur after an incident of victimisation.

## 6.2 Injustice and Inequity

To begin, an in depth look at the concept of inequity is required. Whether victims entered a crisis situation or not, the one unifying feature of the victimisation experience generally was a focus on the resultant sense of injustice, moral outrage or indignation;

In this analysis evidence for the loss of these beliefs, and the resultant challenge to a person's worldview were discernable. Also apparent were the defensive measures which were employed in order to protect one's world view. That is, in seeking to explain the emerging patterns in the data, I have combined the principles of equity and selective evaluation to create the model of coping presented in Figure 6.1; a model of coping that is supported by the data from the Interviews presented here.



here referred to as inequity. As mentioned in the review of the literature, theoretically speaking, equity, and conversely inequity, builds on the concept of a just world. It is a moral precept whereby people believe they have the right to be treated fairly in their interactions with others (Frieze et al., 1987). When this precept is violated, people tend to express feelings of injustice, or unfair treatment. The theory further posits that individuals who are victimised will tend to feel angry and distressed and that this distress will be in direct proportion to the degree of harm. That is, the greater the degree of harm, the greater the magnitude of perceived inequity and, consequently, the more strongly the victim is aroused and distressed (Frieze et al., 1987). The loss of equity may also be interpreted as a loss of equilibrium, as suggested by Bard and Sangrey (1979), who propose that a person's sense of equilibrium is dependent upon their sense of personal control, and basic trust in the world and others, as well as a sense of personal autonomy. These beliefs are very similar in nature to those proposed by Janoff-Bulmann and Frieze, and together give a person a sense of psychological balance. Thus, they are also similarly thrown off balance by an incident of victimisation. The criminal act, for some moment of time, robs the victim of control. This is especially true of interpersonal crimes, where a victim may be painfully aware that their survival is on the line. According to Gottfredson (1989: 221-2), these kinds of offenses 'upset a victim's balance in ways most central to the self as well as the victim's sense of autonomy, order, control or predictability in ordinary activities central to the victim's identity'. Furthermore, victimisation compromises the victim's sense of trust; it is a clear demonstration that the environment is not predictable and may in fact be very harmful (Bard and Sangrey, 1979).

This feeling of inequity was commonplace among the victims interviewed here, though not all expressed it in similar ways. For some victims, the greatest injustice (they felt) was that the offender went unpunished, or received minimal punishment for an action that the victim was still learning to live with what could possibly be many years after the incident. For others, it was the simple fact that the offender likely had no idea the impact their actions had, or worse still, did not even care. One young man, the victim of an attempted burglary when he was at home expressed his sense of injustice as such,

*'One of the most horrible feelings is knowing that someone who's done something horrible to you is walking freely.'*

Similarly, another young man, the victim of a violent assault, felt this way,

*'It did make me feel uneasy that someone else was scot free, especially with the way that they made me feel, and the way that I still feel.'*

Another, this way,

*'I feel like, you know, yes, he's away, but I guess I feel like two or three years is slim, to what will affect me for the rest of my life, and the worst part of that really, is knowing that he doesn't care.'*

These three victims are expressing a common sentiment: that either nothing or not enough happened to the offender. Victims of property crime also expressed feelings of inequity, often relating to expenses incurred or hassle endured as a result of the crime. Two women, both the victims of vandalised/damaged property expressed their feelings as such,

*'Everyone knows he did it, but I'm the one, you know, who is the one to pay.'*

*'We had to pay for something that was done to us, not something that was our own fault, em, which that makes you feel angry in a way.'*

These statements reflect, in one way or another, the sense of inequity or wrongdoing felt by victims. I believe this sense of inequity is a result of the above mentioned beliefs in the world and the self being challenged. Once these beliefs are challenged, according to the model of the coping process, a victim will progress to the next phase, the assessment of coping ability, otherwise known as selective evaluation (Taylor et al., 1983).

### 6.3 Selective Evaluation

According to Taylor et al., (1983) once a victimising incident has occurred the victim is faced with a predicament. That is, depending on how they themselves assess the situation, they will either enter a state of crisis, or actively seek to avoid it. Avoidance may occur either through evaluating one's resources as adequate and thereby preserving the self, or through the successful use of a number of defensive mechanisms by which a victim can downplay the significance of the event in an effort to preserve their views of the world.

By definition, a crisis is an emotionally significant event or radical change of status in a person's life. As discussed in Chapter Two, a crisis reaction is typically composed of three steps: the first is the perception of a precipitating event as being meaningful and threatening, followed secondly by an assessment of inability to modify or lessen the impact of the stressful event. This in turn leads to experiencing increased fear, tension, and/or confusion and exhibiting a high level of subjective discomfort: the active state of crisis (Green, 2005). The second step in this crisis reaction, the assessment of available coping resources, is key to how a victim will respond to an incident. That is, their evaluation of their ability to cope with the victimisation. This assessment can result in either one of two possible outcomes.

In the first case, the victim attempts to avoid seeing themselves as just that: a victim. The word 'victim' has been discussed thoroughly in the literature, with many authors arguing both in favour of it as a word conveying innocence, whilst others prefer the term survivor. Taylor et al., (1983) suggest that the perception of oneself as a victim, and the belief that others perceive oneself as a victim is aversive for a number of reasons. A simple internet search for synonyms of the word 'victim' provides some disturbing insight into why this may be. Where words such as prey, sucker, fool and wretch are related, it is no wonder people do not wish to be associated with the term victim, and actively (though not necessarily consciously) seek to avoid being labelled as such. Furthermore, victimisation may result in a number of undesirable consequences including loss. Loss comes in many forms, such as the loss of property, physical and or psychological health, a sense of control, and self esteem; whilst suffering is generally the result of physical and/or psychological loss (Janoff-Bulman and Frieze, 1983). Negative social reactions to victimisation are also undesirable; hostility, derogation, isolation and rejection are all common responses by others, often the result of (as discussed in Chapter Two) people needing to retain their understanding of the world as just, and to protect their perception of their own deservingness of success (ie, non-victimisation).

A number of interrelated tactics can be used by victims seeking to avoid labelling; a number of which became evident over the course of analysis. Belittling or downplaying the importance of the event was common place, as were, to a slightly lesser extent, the cognitive mechanisms identified by Taylor et al., (1983). These include downward social comparisons, the creation of hypothetical worst worlds, judging one's own adjustment to be exceptional and focusing on one's positive attributes. Each one of these

mechanisms will be discussed below, followed by a discussion of what happens when a victim's evaluation results in inadequate coping resources; the crisis reaction.

### 6.3.1 Belittling the Incident

The tendency to downplay or belittle the significance or seriousness of the incident was common amongst victims, and manifested itself in a number of ways. Assertions that 'these things happen' were frequent; by not labelling the incident as a crime, one of course cannot be considered a victim, and there is thus no need for any further concern. This may in turn be related to the oft cited reason of the incident being 'too minor,' documented by crime surveys as the primary reason behind the routine non-reporting of crimes. If the police are involved, an incident is inherently more serious and more likely to lead to a crisis scenario. In order to avoid this, some victims belittled the incident by downplaying the seriousness of their injuries, such that what were in fact relatively serious assaults seemed rather trivial. For instance,

*'There was na, it was just a minor bruise on my cheek really, it was nothing.'*  
- elderly man, victim of assault

and

*'It was just my entire arm was purple and scratched....so it wasn't badly hurt...but that was all it was, just really bad bruising.'*  
- young woman, victim of robbery

Others instead tended to downplay the incident by writing it off as life experience, or to a sort of 'boys will be boys' blasé attitude. Such as

*'I still think I was right to forget it, put it down to life experience...  
no I did nothing, these things happen.'*  
- woman, victim of housebreaking

Or,

*'We're both long in the tooth you know, and we accept these things  
as nothing drastic.'*  
- elderly man, victim of theft

In both cases where the above statements were made, the crime was not reported to the police, reinforcing the idea that taking such an attitude may be linked to not wanting to see the incident as a crime so as to avoid further involvement with the criminal justice system. By successfully downplaying the seriousness of an incident it is then much easier for the victim to make a positive assessment of the scenario. That is, they may be

able to avoid a crisis by seeing the incident as one with which they can easily and effectively cope. This could potentially allow the victim to maintain their beliefs in a just and fair world, in the basic goodness of others, and of their own sense of safety and autonomy.

### 6.3.2 The 'Worst World'

As well as downplaying or belittling the incident, a victim may compare themselves to others in worse, more horrific situations. This worst case scenario, or 'worst world' could be real or imaginary, but will in either case seek to make the incident which did in fact occur seem far less severe. This tactic thus has a similar goal or outcome to belittling the incident, that is, the victim is able to see their own incident as fairly minor by comparison. A commonly cited example of this is the tendency for rape victims to acknowledge that they could have been killed, or at least subjected to more severe violence or degradation than actually occurred (Burgess and Holmstrom, 1979). One victim, the same woman above who suffered a robbery, explained her attempts to belittle the incident by comparing it to a hypothetical worse incident as such

*'I try and belittle it in my head so it doesn't sound so bad, it could have been a lot worse you know, they could have had a knife or something, it could have been a lot worse.'*

This quotation reflects the inter-relatedness of the various tactics employed, and how they can build on each other to increase the likelihood of avoiding the label of victim. Not only did this woman downplay the severity of her injuries, but here she also focuses on the fact that, luckily, in her case, the offenders did not use a weapon. Another example from the present research shows how an elderly woman compares her current situation after being burgled, to a worse world she has already experienced, the death of her husband many years ago,

*'My husband died in a car accident, it's now twenty years ago, but ever since then, I measure everything against that and I think nobody's dead, right, what's a few possessions, what's a few things?'*

By contrasting her current dilemma to a worse one which had already occurred in the past, the seriousness of this new event pales in comparison. This technique thereby allows the victim to minimise impact and again avoid the unwanted negative effects.

In addition, the creation of a worst world has also been explained as a by-product of the fear inherent in a victimising event (Taylor et al, 1983). That is, during the course of a victimising event, a person may imagine what is likely to happen next, possibly as a means of preparing themselves for this looming sequence of events. For example, rape victims report more fear of being murdered than around the rape itself, and victims of natural disasters report a greater fear of being killed than of the damage actually accrued (Burgess and Holmstrom, 1979). Thus, when later recalling the incident, impressions of what happened may be accompanied by these anticipatory fears that the victim experienced. For example, one interviewee, the same young man who experienced an attempted housebreaking, described his experience in this way,

*'I crouched down and I waited. I thought he was gonna walk through my kitchen door, and I thought that was it, I was dead.'*

This quotation reflects the possibility that when this man explained his experience by detailing how much worse things could have been, he was actually reporting the fears that went through his mind during the event, rather than defensively minimizing his victimisation (Taylor et al., 1983). However, it is quite possible that both of these processes are behind the worst world tactic, or simply that the reporting of fears experienced encourages the need to minimise the event in order to alleviate continual fear.

Interestingly, victims displaying this avoidance tactic were more commonly older individuals, and were likely to have mentioned more than one previous incident of victimisation, albeit these tended to be more minor incidents. Now, much of the literature would suggest that those who are repeatedly victimised should be worse off, and less able to cope (Farrel and Pease, 1998). However, there may be an alternative explanation: provided there were no major previous incidents, it is possible that people who have some experience of crime, or even other forms of adversity (such as the woman who described the death of her husband) may have already gone through the coping process which resulted in a successful reintegration of the self and world view. Thus, the next incident of victimisation does not result in the complete shock and shattering of the belief in a just and safe world as it does for someone who is faced with an unexpected and unparalleled incident. To elaborate, previous research (see Frieze, 1987) has suggested that during the reintegration phase of the crisis reaction, individuals may eventually see their victimisation as the unfortunate result of 'the

imperfect human condition' that is, although people are generally good, the world we live in is a difficult and often challenging place, resulting in scenarios or situations which may on occasion lead to the suffering of some. By adopting such a laissez faire attitude, a victim could possibly accept their misfortune, without condemning humanity to a state of untrustworthiness and evil. This seems to be the outlook taken by the woman cited above, who compared the crime to the death of her husband. After successfully coping with such a traumatic event, she was able to see the burglary of her home as unfortunate, but not the end of the world.

### 6.3.3 Downward Comparisons

Another cognitive technique displayed by victims involved making downward comparisons with less fortunate others. Taylor et al., (1983) suggest that a situation viewed in one light may seem hopeless and dire, yet viewed in another, one may appear to be quite fortunate, thus, by focusing on the beneficial qualities of the situation one may minimise the victimisation. The use of such social comparisons has been a common theme in social psychological research for many years, harking back to the classic social comparison studies by Festinger (1954) and Asch (1951). In situations where one feels threatened, as in an instance of victimisation, it is particularly likely that downward comparisons will be made with someone doing less well. This has the psychological advantage of making one feel good about one's situation relative to the comparison other as well as preserving self-esteem (Taylor et al, 1983). This tactic was also used by some victims. For example, one elderly woman, the victim of a housebreaking, compared her situation to what she imagined it would be like if she had had contact with the offender. As it was, she had slept through the incident and awoken in the morning to find her home amiss; but refused to be shaken by the incident,

*'God, I'd have been a mess if he'd come into the bedroom while I was sleeping, you know, I wouldn't be as clever as I am now....I'd want to die, I might be running to the doctors for tranquilizers then.'*

By imagining this scenario, she sees herself as being quite fortunate for having avoided any contact with the offender, and leaving her in a more manageable circumstance. It is also noteworthy, that when making downward comparisons, a person may choose to focus on a single attribute of their chosen comparison in order to highlight differences.

To demonstrate, this interviewee, a woman whose car had been vandalised, compares herself to others from a financial perspective,

*'200 pounds, you know, that woulda meant that I didn't have a couple of nights out, because money is, you know, a lot more comfortable, but for a lot of people that would have been a financial disaster.'*

Thus, by focusing on her on financial stability, she felt particularly able to cope with the financial impact which resulted from her crime. It would seem then, that a robust way to minimize victimisation seems to be the making of downward social comparisons. By making such a comparison, the victim claims that there are many others worse off than themselves, with the result being the self is not to be pitied or derogated.

#### 6.3.4 Deriving Benefit and/or Learning

Yet another technique for minimising victimisation is to attempt to redefine the event so as to highlight any benefit that may be drawn from it. This ability to exact some good from harm rests largely on one's finding meaning in the experience (Taylor et al., 1983). Such meaning and/or benefit may often be in the form of self knowledge and understanding, or even in a new attitude towards life. Although there were no outright examples of this in the interviews conducted here, one respondent did suggest they were attempting to see their incident in this light,

*'I don't know what to make of it, I don't know how to turn it into something good'.*

Although this victim is obviously still struggling, it is clear that he feels in order to move on he must learn something from his ordeal. The lack of this tactic in the current data set may arise from the fact that many of the incidents of victimisation had occurred fairly recently, and thus victims had not had sufficient time to deduce a positive aspect from the experience. However, there was some indication of victims using the research interview as a means of 'giving back', that is, of sharing their experience so that it could possibly be of use to other victims in the future, which could no doubt be seen as some good coming out of unfortunate harm.



### 6.3.5 Exceptional Adjustment

One final mode of selective evaluation is the creation of normative standards of adjustment. As in some of the previous tactics, this method involves the evaluation of one's situation against a comparative standard. However, in this case, the victim may actually acknowledge the incident, but maintain that they have dealt with it extraordinarily well. Taylor et al., (1983) suggest this strategy is embodied by the statement "I'm doing very well under the circumstances". In the current study a number of victims indicated some use of this tactic although they were more likely to acknowledge they were still coping to some extent, but that they were doing this successfully. For example, one respondent stated 'I'm so much better, but I'm not, who I was'. The statement does seem to imply exceptional coping, but also acknowledges the loss inherent in the ordeal. Another victim however, told a story about another victim, whose coping was much poorer than her own,

*'I had a client who um, worked in an off-license as a shop assistant and somebody came in and (robbed the shop) because of, she had moved house, she couldn't work, you know she was really, she became obsessive compulsive disorder, em, it had really ruined her life...and I was coming across maybe four years after it happened...and she was genuinely, still traumatised.'*

By comparing herself to this 'other' who had handled the situation much less effectively, the victim here, who had herself suffered from multiple housebreakings, was able to feel better about herself and more confident in her ability to cope. It had only been a couple of weeks since the crime when I interviewed this woman, who refused to cry or be otherwise emotionally affected by the incident. By comparing herself to someone, who four years on had still not recovered, she of course would appear to be handling everything exceptionally well.

### 6.4 Victimhood and the Crisis Reaction

In the previous section, six defensive mechanisms which victims may utilise to avoid or downplay the significance of an incident in an effort to preserve their views of the world were introduced and found to fit the data. In this section, I will cover the path taken by those who have neither adequate coping resources, nor succeeded in the use of the above defences.

These are the victims who, following an incident, find themselves in such a state of disequilibrium and inequity that they are overwhelmed and judge themselves unable to cope. In other words, they are having a crisis reaction. Victims in this category tended to be younger and were more often those who had had direct contact with an offender, for example through a violent assault or robbery. Such a direct violation, and powerful loss of control and autonomy leaves the victim unable to belittle or downplay the crime; an assault resulting in facial reconstructive surgery is never going to be a minor incident. Most people have little or no experience with personal threat, therefore when confronted with an actual crime or criminal they are at a loss; nothing in their typical repertoire has prepared them for such a situation (Bard and Sangrey, 1979). This sudden, unpredictable violation leaves the victim feeling so shattered that they cannot continue to function as they did before the incident.

As mentioned previously, the amount of inequity felt will be in direct proportion to the harm suffered, and thus also the level of coping required. Here, it is evident that the greater the violation felt, the stronger the adverse psychological reactions. However, as is found in the literature, the perceived violation is not necessarily perfectly correlated with the type of crime. It has to do with the victims own assessment of the incident; how traumatic it was for them, whether it was a serious assault or a purse snatching, what matters is again, the victim's assessment of the threat to themselves. For example, research by Blanchard et al., (1995) suggests that a victim who feels their life was threatened, regardless if it actually was, is likely to suffer far greater psychological impairments than one who did not. In the present research, this was clearly demonstrated in the case of the young man who was the victim of aggravated housebreaking, or home invasion, who three months on, exhibited rather severe psychological impairment such as nightmares, difficulty, sleeping, paranoia, obsessive compulsive behaviour, hyper-arousal and exaggerated startle response. Bard and Sangrey (1979) suggest that victims of burglary may be as adversely affected as victims of violence due to the connection a person has with their home. They see the home as an extension of the person, filled with intimate possessions and memories. Thus a violation of the home is also a violation of the self and a person who is robbed of an object that has great sentimental meaning will suffer a deeper sense of violation than someone from whom expensive but insignificant things are taken.

From this point then, the victim will embark on the path to recovery, working their way through the three stages of the crisis reaction covered in Chapter Two. Much evidence

for this process was found in the interviews, with victims themselves acutely aware of coping as a process. Many references were made to a slow progression or decline of symptoms. Yet there was also a profound awareness that the incident had changed them, and that their new self required the reintegration of beliefs about the world and others. There were also a number of references to this original loss of a sense of the world as meaningful and just, though not surprisingly; victims had some difficulty in expressing it as such. Instead, they mentioned, as depicted here, the feeling of something missing, of disequilibrium, or non-normality.

*'Before, I had friends. I had a family, I had a flatmate. I lived quite a personal life you know, and I want that back, I want that security back. I want what I had back. It's difficult, because you don't know what you've lost, and no one can tell you what you have lost.'*

*'It's hard to describe, and it's hard to explain, but you just want normality back.'*

Both of these quotations demonstrate the feeling of loss, though in both instances, the interviewee has a hard time verbalising precisely what it is they have lost. One victim refers to it as normality, while the other makes note of their lost sense of security. Both security and normality are concepts included in the grander world view of the individual, which would also include the idea of a just and safe world. Thus, the loss expressed by victims lends support to this theory.

Victims interviewed here would also easily fit into Bard and Sangrey's (1979) crisis based model of coping. Not only did they clearly demonstrate a sense of loss, but also apparent were characteristics expected of victims in the second stage of the coping with crisis model, the Recoil Stage. In this stage victims begin to adapt to the violation and to reintegrate their fragmented selves. This requires the victims to address a number of emotions, commonly including fear, anger, sadness, self-pity and guilt.<sup>13</sup> Examples of the intense emotions associated with this stage were common,

*'Paranoia is one of the biggest things that have come out of this for me... I automatically get paranoid, and I automatically start looking for somewhere to get out.'*

- young man, victim of attempted housebreaking

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<sup>13</sup> For a detailed discussion of the recoil and reintegration stages, see Chapter Two.

*'I just felt really hard done by. I felt like I'd been punished in a way...I felt really, really, really angry, and I think mostly I was angry because I was scared. Scared that he was gonna be out there again...Don't feel anywhere is safe anymore. No where's really a nice place.'*

-young man, victim of assault

*'I was just crying all the time, and feeling panicked and terrified of people behind me because I was grabbed from behind. I still have a thing...about people being behind me, and I expect people to attack me now. People who walk too closely behind me, people who sit too closely behind me on the bus, I'm always just hyper-aware.'*

- young woman, victim of robbery

Paranoia, fear, anger and hyper-vigilance are just some examples of some of the psychological disturbances associated with this stage. Also interesting to note is the sense of inequity, or 'feeling hard done by' in the second quotation, as well as the sense of insecurity in that 'nowhere is safe'. The final quotation demonstrates an acute inability to trust people; all symptoms we would expect as a result of the loss of just world related beliefs.

Finally, there was also evidence that a few interview respondents had entered the third and final stage in the coping process, the reintegration or reorganisation phase. According to Bard and Sangrey (1979) this stage is characterised by the diminishing of fear and anger, and the regaining of equilibrium and balance. In other words, the victim has learned, or is learning, to adapt their world view to include their experience.

*'The general consensus is that it will never really go away but that it will die down, but it is something that i will take with me, and use it however it needs to be used.'*

*'It's also something that will be with me for the rest of my life, I will always remember it, I will always know exactly how I felt. Em, but I have to realise that that is something that I will now use...'*

These quotes clearly demonstrate the idea of how victims, since they will always carry the traumatising event with them, instead of forgetting, learn to integrate the experience into their lives. They accept that bad things do occasionally happen to good people, but that this is not a cause for despair. In the words of Bard and Sangrey (1979) 'victims never entirely forget the crime. Their suffering lessons but the effects of the experience remain as part of the self. Their view of themselves and the world is permanently

altered in some way, depending on the severity of the crime and the degree of the impact.' (p.47)

#### 6.5 Avoiding Victimhood as an Explanation for Non-Reporting and the Under-use of Services

Although the sample in this research was slightly biased in the sense that most crimes covered were in fact reported to the police, there still remains evidence suggesting that the desire to avoid labelling oneself as a victim may be related to the under-reporting of crime. As mentioned previously, if a person calls the police about an incident, their involvement of the authorities automatically increases the perceived seriousness of the event, making it less likely the victim will be able to minimise the incident and preserve their beliefs about a just world.

*'It can't be that big of a deal, and you know, am I supposed to phone the police just because they've snatched my bag and whatever?'*

This victim, the same woman of robbery quoted above, seems to be actively downplaying the incident, which here involves the notion that the incident was too minor to report to the police. This belittling or downplaying of the incident was common among victims (as demonstrated in the previous section) and is a logical antecedent of non-reporting. Such an explanation is supported by previous findings from survey based research, where for example, in the SCJS the most commonly cited reason for not reporting a crime is that it was too minor. In the present research, this was common among respondents despite the fact that the majority were victims of violence or burglary.

In addition to non-reporting, further evidence from interviews suggests that avoidance of victimhood may also play a role in the under utilisation of victim services for many of the same reasons mentioned above. That is, rather obviously, only victims use or need victim support. Therefore by avoiding such services one may also avoid the stigmatising consequences of victimhood. For example,

*'One of the reasons I didn't go (to VS) is because I didn't want to feel like I needed counselled.... it's just a personal feeling. Sometimes I feel like in order to go, you have to admit that you have a problem, and it's not so much that I feel like I have a problem, it's just that I need to adjust, and adopt to, and I think I can do that, I think I can do it, through day to day interaction, and day to day normal activity,'*

Here we see a victim who clearly does not want to see themselves as such. The interviewee openly expresses their desire to avoid 'having a problem' or to feel like they 'needed counselled', two characteristics that victims would most certainly possess. Furthermore, this quotation exhibits another common finding, which most victims prefer to work through the consequences of their crime independent of outside aid, and focus on reassurances from friends and family. For instance,

*'I think that the only reason I haven't gone is that I feel I have adequate support. If I hadn't had my, if it was only my family and not my friends I think, and my flatmate, then I probably would have gone.'*

*'I think I just made the decision early on that yes, something horrible has happened but I can try and work past it, with the help of friends and family, rather than through an external source, but it's nice to know that it's always there as an option.'*

*'I wanted to give myself time to make sense of it, before someone else tries to tell me how to make sense of it.'*

Similarly, as victim support may not be available immediately after the incident (as was indicated by respondents) victims may have already reached the point in their recovery where the support offered by service providers may have become redundant, and more of an obstacle to recovery than an aid. For instance,

*'I didn't go, I was not really, just wanted to sort of, get past it, try and forget the whole thing, not drag it out.'*

*'They just wanted me to tell her exactly what had happened and how I was feeling and things like that, and I'd felt I'd already done that, a lot.'*

Numerous papers (see Simms, 2005) have cited the importance of timely service provision in the effective alleviation of symptomology associated with victimisation; and what victims seem to be saying supports this idea, that is, if support is not available promptly, it may result in the victim having to continually relive the experience at a point when they may be ready to move on to reintegration. Although most participants claimed to have received either a letter or pamphlet through the post within a day or two of reporting the crime to the police, those who had actual face to face sessions with support workers did not receive this service for up to two weeks after the incident.

To reiterate, it seems likely that the desire to avoid the state of victimhood is at least in part responsible for the under reporting of crime to the police, as well as the under-utilisation of support services. That is not to say this is the sole reason for low reporting and uptake rates; research discussed in Chapter Two demonstrates rather effectively that, for example, perception of the crime as relatively minor, a lack of knowledge, and the availability of alternative forms of support play a part in this phenomenon. Evidence of this type was also found here, with many victims downplaying or belittling the incident, and others referring to the significance of friends and family in coping with crime.

## 6.6 Summary and Conclusions

In this chapter the impact of crime was demonstrated via the experiences of a small group of local victims. Their experiences of the initial incident, the criminal justice system, and the struggle to regain equilibrium and normality took us well beyond the first hurdle and provided new insight into the longer term effects of victimisation. Based on the information gained from these interviews, an original model of coping processes which combines and integrates the existing theory (see Bard and Sangrey, 1979; Janoff-Bulman and Frieze, 1983; Freize et al., 1987; Green, 2005; Taylor et al., 1983) has been introduced and supported by the evidence. This model described a process of emotional and psychological reactions, focusing on a sense of injustice or inequity which leads to a critical assessment of the coping resources available to deal with the stressful situation. If a victim assumes they do not have sufficient coping resources to handle the predicament, they will embark on a classic crisis response. If, on the other hand, the victim is able to utilise any number of cognitive mechanisms to successfully downplay the incident, they may avoid a crisis by concurrently avoiding the victim label. Building on this model, it was further argued that the desire to avoid the aversive label of victim was also in part responsible for the under reporting of crime to the police, as well as the under utilisation of available victim support services. This argument regarding the importance of labelling in the coping process and victim decision making is of course mostly speculative at this point, and would require further research to confirm aversion to victimhood as a causal factor in the non-reporting of crimes to the police and under use of services. That being said, this discussion will be

picked up in the following chapter which will integrate the quantitative modelling with the qualitative data.



## Chapter 7: Discussion

### 7.1 Introduction

The previous two chapters addressing the results of quantitative modelling and qualitative interview analysis respectively have presented a substantial amount of data for consideration. The purpose of this chapter is to integrate the findings based on these two types of analysis by seeking areas of convergence and corroboration, as well as contrasting or complimentary results, and relate this back to the literature underpinning this area of research. That is, to test for in/consistency across the data in order to clarify and enhance the findings from one method in relation to the other. In so doing, I hope to draw out the theoretical implications of the findings as well as items of practical and policy relevance. This will be achieved throughout three sections each addressing one of the research hypotheses set out in the design chapter. Each section will in turn discuss whether or not the hypothesis was supported or rejected, and the implications of the finding. Following this will be a number of recommendations for victim policy improvements and finally some discussion of limitations which could be addressed by further research.

### 7.2 Discussion

Prior to delving into the discussion, a recap of what has been accomplished thus far will serve to refresh my aims and objectives, making the following discussion clear and relevant. As noted previously the major objective of this thesis is to go beyond the 'first hurdle' of victimisation research, and to explore the impact of crime on its victims not just as a single and isolated incident, but as a process which carries the victim through a number of steps in the criminal justice system, each one related to and building on the last. To this end in this thesis I have examined four stages in the victimisation process: the initial incident and risk factors associated with it, reporting (or not) the incident to the police, seeking or taking up available support services, and finally, the judgement of these services as useful or not. Drawing on previous research from a number of areas of literature, three hypotheses were identified to be tested from the data. The first of which suggested we could expect to find a pattern of characteristics across all four stages of the victimisation process; the second proposed the superiority of the quantitative methods

employed; and finally, the third stressed that the emotional responses to crime would play a major role in victim decision making. Each of these hypotheses will be discussed in turn below.

7.2.1 A pattern of key characteristics is expected to influence not only the initial risk of victimisation, but the decisions to report crime and make use of available services.

When examining the results presented in Chapter Five the nature of the analytical results do not lend themselves easily to a simple set of conclusions. However, upon closer examination it is clear that a number of variables are repeatedly having a significant impact, whether the model is of risk, reporting or service use. In fact, rather than a single pattern, three distinct patterns were found in the data. The first pattern relates to common variables found between the models of property and personal victimisation risk. The second pattern emerged across all five models of reporting, service use, and satisfaction and demonstrates the significance of a victim's perception of the crime, fear, and having difficulty sleeping. Finally, one additional pattern emerged around the effects of gender in each of the models, which had an impact on victimisation risk, reporting, service use and satisfaction. In the following sections a detailed description will be provided for each pattern, followed by a discussion of the theoretical and practical implications.

#### Pattern A: Victimisation Risk

To begin, I will take a closer look at the two models of victimisation, one looking at property victimisation, the other, personal victimisation. Although there are of course some key differences between the models, such as the amount of variance attributed to Intermediate Geography (which will be discussed in more detail in the next section) there are also some key similarities.

In both models of victimisation risk the Urban variable, which consisted of three categories: city, town or rural, was a significant explanatory factor. In this case, city was used as the reference category, and for both models, town had a negative relationship with risk (though this was only marginally significant in the case of property crime). Living in a rural location however, decreased the risk of victimisation for both property

and personal crimes, lowering the odds of victimisation by a factor of 0.658 for property crimes and 0.743 for personal crimes. Thus it is clear the effect of living in a rural area is similar across these two types of crime.

In addition, the binary measure of having an offending history (0=no, 1=yes) was significant for models of both crime types, where a positive response increased the risk of victimisation. The effect was however much stronger in the model of personal crime where it increased the odds of victimisation by a factor of 2.21, versus 1.37 in the model of property crime. The variable measuring age in four categories (16-24, 25-54, 55-74, 75+) was also significant across both types of crime, with both personal and property crime risk decreasing with increases in age. The only difference being that the 25-54 group in the property crime model had a non-significant positive effect whilst for personal crimes this group still had significantly less risk than the reference group of 16-24 year olds.

Measuring deprivation via SIMD also resulted in similar effects across models. That is, for both crime types those with lower levels of deprivation (those in groups four or five) were significantly less likely to be victimised, with slightly greater odds in the model of property crime. This greater impact on property crime is also reflected in the fact that those in the middle group of deprivation are also significantly less likely to be victimised by property crime, but are not so in the model of personal crime. Finally, marital status also served to lower the odds of victimisation across crime types. When comparing married and civil partnerships to the reference category of single persons, those who were married had odds of 0.810 and 0.634 (property and personal), indicating a negative association with victimisation. Also of interest is the fact that being divorced or separated had the same positive effect, that is, an increase in the risk of victimisation for both personal and property crimes, though this was only significant in the model of personal crime. Being widowed similarly served to lower risk in both models, but again was only significant in the model of personal crime.

What is this pattern telling us? Stepping back from the data and looking at the big picture reveals the possibility that victimisation risk is a combination of life stage, lifestyle and location choice with those at more vulnerable stages and locations facing greater risk of victimisation. That is, those who are young, single, living in deprived urban neighbourhoods and involved with the criminal justice system are more vulnerable to crime, and less likely to have immunity to victimisation. The concept of

vulnerability in relation to risk is not a new one, and has been particularly highlighted by Hope and Trickett (2008) who, as discussed in the literature review, see victimisation risk more as an indicator of belonging to either of two opposing groups in the population, one of which is highly immune to crime, the other of which is highly susceptible. Clearly the combination of characteristics found in this pattern may make it much more difficult for an individual to achieve immunity from victimisation.

Furthermore, looking to the qualitative data, we see some support for this interpretation. Of the victims who experienced violent crime, they were more often young, and more importantly, seemed to have a much harder time coping with the crime than older, more well off victims. This finding was discussed previously in Chapter Six, where it was proposed that more mature victims may have greater experience in dealing with adversity, and are therefore more readily capable of attributing a crime to the imperfect human condition' rather than an unjust, dangerous and frightening world (Frieze, 1987). The relevance of this finding here though, has to do with the greater challenges to young people, especially those living in deprived urban neighbourhoods, with offending histories, in coping with incidents of victimisation. That is, victims with these characteristics will likely have a harder time acquiring a state of immunity. This may come about via several routes where, for example, having a history of offending may make it more difficult to receive compensation to help alleviate the impact of a crime. It may also make it more difficult to obtain employment, and the necessary means to remove oneself from ongoing risk. These characteristics thus reflect a pre-existing vulnerability affecting a person's ability to prepare for and recover from a victimising incident by impeding the deployment of necessary and effective resources for avoiding risk and/or acquiring safety.

Thus far we have only compared across two models of victimisation risk, looking at similarities across property and personal crimes and, to summarise, have seen that in both cases the effects of living in an urban versus rural location, of having an offending background, of being young, living in a deprived neighbourhood, and being single place one at greater risk of being a victim. Qualitative data further suggest that characteristics such as being young of age may make coping with victimisation once it has happened more difficult. However, still more patterns emerge when we take into account the entire process of victimisation; when we look at risk, reporting and service use together.

## Pattern B: Perception, Fear and Difficulty Sleeping

A particularly interesting pattern emerges when we look across the models of reporting, service use and satisfaction. First, when we compare the two models of reporting behaviour, for property and personal crime, three characteristics are found to have significant positive effects for both crime types: the perception of the incident, fear and having difficulty sleeping. The perception of the incident as a crime or not was the strongest predictor of reporting to the police in both models, increasing the odds of reporting a property crime by a factor of 6.155, and personal crimes by a factor of 13.983.

In addition, the variable measuring whether or not a victim was having difficulty sleeping following the crime again strongly predicted reporting in both models; by a factor of 2.8 for property crime, and 4.64 for personal crimes. These two variables each had an even greater effect than the sizeable impact of the presence of a weapon in the committing of the crime (3.022), or the victim sustaining an injury (2.191); typically referenced as the most common factors influencing a victim's decision to report (see Skogan, 1988). Feeling fearful after the incident was also a significant predictor of reporting for both crime types, though in this case the greater odds (4.169) were for property crime rather than personal crime (1.94).

Moving on to examine the model of service uptake, which includes both property and personal crimes, we again see the perception of the incident, fear and difficulty sleeping emerging as significant predictors of service use. The perception of the incident as a crime increased the odds of receiving support by a factor of 3.13. Having difficulty sleeping increased the odds of receiving support by a factor of 3.5, while being fearful a factor of 3.2. Feeling threatened and sustaining an injury as a result of the crime also appear in the model of service use, which were significant predictors in the reporting of property and personal crime respectively. Finally, looking at the model of satisfaction with services received, we again see the significant impact of having difficulty sleeping. Although, in this case, the variable had a negative effect, and decreases the odds of victim satisfaction by a factor of 0.24. Thus we see a pattern emerging in which the way a victim perceives and interprets what has happened to them, as well as the impact of the initial crime on the victim have a substantial influence on their subsequent behaviour.

In seeking to explain and understand the importance of this pattern the overlap between the quantitative modelling discussed so far and the qualitative results reported earlier in Chapter Six begin to coalesce. In this section, I will seek to explain how this pattern in the quantitative data can be explained, at least partially, by the theory of crisis reaction and perceptions discussed both in Chapter Two and Chapter Six. That is, following the initial incident, the remaining steps in the process of victimisation are much less about life stage, life style and location choice, but more about emotive and moral reasoning.

One of the devices used by victims to avoid 'victimhood' was to downplay the incident, to make it less serious or severe thereby maintaining their belief in a just or safe world (Taylor et al., 1983). In both models of reporting behaviour the variable indicating whether or not a victim perceived the incident as a crime was by far the strongest predictor of police contact. The odds of reporting for those who considered what they had experienced to be a crime were between six and nearly fourteen times greater than for those who did not. This may seem obvious and reasonable at first, of course no one will report an incident which they do not believe to be a crime, but we must look at this effect more broadly. What does it mean when a person perceives that they have been the victim of crime? It is of course logical to make the above assumption that if you perceive an event to be a crime you should be more likely to report it, but what about when we consider this perception from a theoretical perspective? Although Taylor et al., (1983) did not apply their theory of selective assessment (which describes mechanisms used by victims to avoid the 'victim' label) to the reporting of crime, the simple extension of it would imply that a person who perceives what has happened to them as a crime will be less able to neutralise the incident in order to escape the stigma of victimisation; and that subsequently non-reporting may be linked to downplaying the seriousness of an incident (or use of any other technique of selective assessment).

Taking this extension one step further, one might expect persons who have been the victims of offences which resulted in fewer negative consequences, to be in a situation where they may be more able to employ any number of techniques to downgrade the seriousness of the incident in order to avoid the 'victim' label. Such an expectation could be based on the common finding from past crime surveys that one of the major reason victims give for non-reporting is that they considered the incident to be 'too minor' (SCJS, 2008/9). On the other hand, there are two possible interpretations concerning individuals who have been victims of personal crime. The first being that victims of

personal crime will be less able to downplay the incident due to its (theoretically) more serious nature; they are more likely to have had direct contact with an offender and/or sustained injury, occurrences which make writing off an event as 'just something that happens' much more difficult. This is compounded by the significant and (statistically) positive effect of the presence of a weapon during the course of the incident as well as acquiring an injury on the likelihood of reporting. However, an alternative explanation may be that the very same nature of personal crimes, possibly involving direct confrontation and personal threat, may result in a greater challenge to one's belief in a just world, sense of safety and/or autonomy (Bard and Sangrey, 1987) which may in turn result in greater motivation to downplay the seriousness of the incident in order to preserve the self. This second interpretation is supported by the finding (presented earlier in Chapter Five) that property crimes are reported more often than personal crimes, 64.4% versus 57.9%. Furthermore, it is not then surprising that a cross-tabulation revealed that victims of property crime are also more likely to perceive the incident as a crime compared to victims of personal crime ( $\alpha < 0.001$ ). However, when victims of personal crime do in fact perceive an incident to be a crime they are much more likely to report it. Unfortunately I was unable to cross reference this finding with the qualitative data, as all the interview respondents reported at least one crime to the police. As such, this finding is one that could yield valuable further research.

There are two further aspects of this pattern to discuss: the influence of fear and difficulty sleeping. In light of the discussion thus far, it is not at all surprising that these two variables are occurring together with the perception of the incident variable, for those same incidents involving a greater threat to the self are also likely to be those which result in the greatest levels of fear and other psychological and emotional consequences. For instance, fear, trouble sleeping and nightmares are all symptoms of PTSD reflecting the victim's hyper-vigilance resulting from the feeling of needing to be on alert, on guard or on the lookout to protect oneself from danger. Such hyper-vigilance and fear as well as worrisome or negative thoughts, may make it difficult to fall asleep, or cause waking easily throughout the night, especially if a noise is heard (Department of Veterans' Affairs, 2007). One study conducted by Foa et al., (1997) found that up to 78% of PTSD sufferers experienced difficulty sleeping and/or nightmares; the second most common symptom after intrusive images. Difficulty sleeping and nightmares were also reported amongst the interview respondents, for example,

*'I suffered from nightmares, different ones, but it's always him that's in it, and sometimes it will just be a memory of what's happened.'*

The nightmares described by this respondent echo the diagnostic criteria of PTSD, as did many other of the symptoms he described. However, this is of course not to say that all victims of crime have PTSD, but that those who do develop some of the symptoms may also be those who perceive the incident as a crime.

This pattern has demonstrated how, throughout the process of victimisation, a sense of fear and injustice, as well as physical or psychological injury, affect decision making and reasoning, though not necessarily at a conscious level. Three variables which together reflect not only symptoms of severe psychological impact, but of a loss of the sense of a just and safe world are demonstrated to have a profound impact on how a victim progresses through the criminal justice system. Finally, one last pattern emerged across the quantitative data which demonstrated how a somewhat unexpected pattern also exudes a substantial influence on victims in the system.

#### Pattern C: Gender Effects

This third pattern emerged around the variables measuring gender in the models. Concordant with findings from government analyses of previous SCJS data (Page et al., 2009), males were found to be at greater risk of victimisation, with women being significantly less likely than men to be victims of personal crime, with odds of only 0.801 (gender was not a significant predictor concerning the risk or reporting of property crime). Also in line with the literature was the greater tendency for women to report crimes to the police (see Goudriaan et al., 2006) or to take up available services (Simms et al., 2005). In the model of reporting personal crime, gender was the only variable at level two (individual level) to have a significant impact, with females (compared to males) having odds of 1.934. In addition, gender was again one of only two variables at the individual level influencing the uptake of services; where being female increased the odds of service use by a factor of 1.535. Finally, gender was also one of only four variables found to have significant influence on satisfaction with services received, where again being female increased the odds by a factor of 3.262. To summarise, women may be less likely to be victimised than men, at least when it comes to personal crime, but when victimised they have far greater odds of reporting a crime, to use available



support services, as well as to find those services useful. Research into gender differences in coping styles is fairly extensive, and can help to shed some light on the current findings.

The qualitative data also revealed one gender difference of note: the seeming tendency of female victims to rely more on friends and family in the aftermath of the incident. They reported seeking help almost immediately from such relations, whereas one man informed me that I was the first person he had spoken to about the incident, even though it had occurred more than ten years previously. As these results are based on such a small sample, the differences are not exactly reliable; however their value lies instead in their ability to highlight possible explanations. For example, it may be that as females engage, confide, and talk about their experiences more often with close others they are encouraged to seek help and advice. This explanation is in line with the theory of Ruback et al., (1984) discussed earlier in Chapter Two, which to review, suggests that crime victims' decisions are susceptible to social influence such as guidance and advice from friends and family when labelling the incident as a crime and subsequently determining its seriousness and deciding what to do.

Another explanation could be that women find threatening events to be more stressful than men. Golding et al., (1988) found the use of services to be mediated by distress. That is, those who experience more distress are more likely to utilise available services. Following from this, if women find incidents of crime to be especially stressful, and thus experience more distress as a result, they may be more likely to report crimes and seek assistance as a result. This explanation is supported by the extant research on gender and coping styles. Men and women are thought to rely on two differing styles of coping behaviour; men tend to use problem-focused coping, whilst women tend to use strategies that modify their emotional response (Matud, 2004). In contrast to problem-focused coping which includes cognitive and behavioural attempts to modify or eliminate the stressful situation, emotion-focused coping involves attempts to regulate emotional responses elicited by the situation. Researchers (see Folkman and Lazarus, 1980) have suggested that emotion-focused coping is less effective and more likely to be associated with psychological distress than is problem-focused coping. If this is true, the distress resulting from employing emotion-focused coping could lead women to make use of support services. Further research is needed to clarify the impact of coping style and social influence on women's involvement with the criminal justice system. I suspect

that it is in fact a combination of the two factors acting together to create such significant differences in rates of reporting and service use.

*7.2.2 It is expected that a) multi-level models employing MCMC estimation will provide more reliable estimates than traditional regression techniques, and that b) there will be a significant amount of variance accounted for by between neighbourhood differences.*

a) Of all the hypotheses suggested in this thesis I believe this is the most straightforward to test. As such, it is also the easiest to show how it has been supported by the data. In the five multi-level models presented in Chapter Five, in two two-level models of victimisation risk, and three three-level models of reporting crime and service use, estimates based on MCMC estimation consistently outperformed those of either the single level traditional regression models or quasi-likelihood based multi-level models.

To see this in action, all one must do is return to the results tables presented in Chapter Five and compare beta coefficients across the columns indicating single level, PQL, and MCMC respectively. For example, in the first model presented of property crime victimisation all four categories of SIMD evidence an improvement, such that for category 5, the least deprived, the protective effect in the single level model is -0.649, -0.685 in the PQL model, and -0.692 when estimated using MCMC. Modest changes no doubt, but important none the less. The more substantial impact of MCMC estimation is apparent in the estimation of the random parameters in the models, that is, of  $\sigma_{u0}^2$  and  $\sigma_{v0}^2$ . Of course single level models are not capable of producing these parameters, but often even PQL estimation resulted in a coefficient equal to zero for the highest level in the model where MCMC methods uncovered even small amounts of variation between neighbourhoods. For example, in the model of service uptake PQL estimation resulted in an estimate of 0.000 for  $\sigma_{v0}^2$  where MCMC resulted in an estimate of 0.523. Furthermore, even when PQL resulted in significant estimates of random coefficients, they may have been substantially underestimated. To demonstrate, this time we look to the model of personal crime reporting where PQL resulted in a significant estimate of 1.373(0.277) for  $\sigma_{u0}^2$ , which was found, after 500,000 iterations in MCMC to be much greater, 7.269. Such underestimation of these parameters has knock on effects for the model interpretation. Continuing with the last example, the variance attributed to the second level in the model of reporting personal crime based on MCMC estimation was a sizeable

68%, however if we had estimated this value based on PQL estimation, we would have an estimate of individual level variance equal only to 29%, less than half of that uncovered by MCMC.

b) The second aspect of this hypothesis, that a significant amount of variance will be accounted for by between neighbourhoods, is harder to verify. The predominant reason for this is the simple fact that there is no standard for what counts as significant in this sense beyond the standard statistical techniques (described in Chapter Four) used to assess the necessity of multi versus single level analysis. Statistical significance and real world significance may, in this case, vary substantially. As very few studies employing multi-level techniques are found in the criminology literature, in order to establish commonly found levels of neighbourhood variance one may turn to the field of education, where this methodology is more commonly used to study between school and between district differences. Here, common findings suggest (see Gibbons, 2002) that between 5 and 6% of variance is often attributed to between neighbourhood differences. Taking this as a starting point, our hypothesis is at least moderately supported in the case of victimisation risk and reporting, and strongly supported in the case of service use.

As demonstrated in Table 7.1 below, in four out of five of the multi-level models conducted, neighbourhoods (defined in terms of intermediate geographies) accounted for at least 5% of the variance in the model, and a substantial 45% of variance in the model of service use. When examining the first two models conducted, the risk of property and personal crime respectively, we see a sizeable (8%) proportion of variance attributed to intermediate geography when it comes to property crimes, but only 1% of the variation in personal crime is due to this level of the data.

Table 7.1 Individual vs. Neighbourhood Variance

	Individual Level Variance	Intermediate Geography Variance
Victimisation Risk:		
Personal crime	n/a	1%
Property crime	n/a	8%
Reporting:		
Personal crime	43%	7%
Property crime	68%	5%
Service Use	8%	45%

Keep in mind however that these models contained only two levels of data, the individual and intermediate geography. Next, looking at the two models of reporting behaviour, we see an interesting phenomenon arise. Whilst a similar proportion of the variance in the property crime model (5%) as well as the personal crime model (7%) is attributable to neighbourhood, a much more substantial amount is attributed to between individual differences. That is, these differences accounted for 68% of the variation in the model of property crime, and 43% in the model of personal crime.

The opposite pattern was however found when modelling service use. In this case, the variance at the IG level was 45%, whilst a much lesser amount of 8% was found to be resulting from individual differences. I suspect the sizeable amount of variation in the model of service use is due to the simple fact that services may not be accessible in certain corners of country, though this claim is in need of further investigation. The results in all of the models also suggested that all variables included in the final models did not have significantly different slopes across neighbourhoods. That is, when testing for random effects, these variables were found to have a similar impact on the dependent variables regardless of what intermediate geography they were in.

So, what exactly are these findings suggesting? In line with the education research mentioned above, neighbourhood seems to be accounting for a rather small, yet significant proportion of variance when it comes to risk and reporting, but the bulk of variance when it comes to service use. That is, when we are considering the risk of victimisation or reporting, the neighbourhood one lives in seems to be exerting a similar level of influence; yet when looking at service use, the influence of neighbourhood is far more substantial. Interesting to note here however, was how, when tested individually in bi-variate analysis, many IG level variables did in fact tend to have a significant impact on the dependent variable. For example, in both models of victimisation risk, around ten explanatory variables, such as the percentage of young people, single parent households, or income deprived in the neighbourhood, were found to have a significant impact when tested in this way; a number which dropped to zero in the final multi-variate model. A similar result occurred in the models of reporting; initially a substantial number of variables were found to have an impact, yet only two variables in only the model of personal crime remained in the final model. In the model of service use this was yet again the pattern, where out of four variables found to be significant in exploratory analysis, only one (% of dwellings flats) remained in the final model, and only barely at that. In all cases, it seems that explanatory variables in the lower levels of the model are

much more likely to exert influence even when other variables are added to the model. For instance, in the models of victimisation risk, which contain only data at two levels, individual and IG, in the final models for both crime types the vast majority of significant predictor variables are found at the individual level. In addition, in the models of reporting to the police, where incident level predictors were introduced, most of those variables remaining in the final model were found at this level, with even individual level predictors having less of an impact. A similar pattern was again observed in the model of service use, where six out of eight variables found in the final model were measured at the incident level.

Thus we can see two patterns across the data. The first being that incident and individual level variables exert greater influence on the initial risk of victimisation than those measured at the neighbourhood level, as well as both the decision to report a crime and the decision to make use of available services. The second being that while IG accounts for a similar proportion of variance across models of risk and reporting, where it can be measured, variance at the individual level is far greater (between 43 and 68 percent). Yet in the model of service use, we have the opposite pattern. This finding demonstrates how important it is to take into account the effects of crime and victim characteristics when examining the effects of neighbourhood characteristics, for even though the amount of variance accounted for by the neighbourhood level varies substantially between the models of risk and reporting and the model of service use, in all cases, variables at the lowest level exerted the greatest influence. A finding that confirms the necessity of multi-level analysis on one hand, but that also exists to a certain extent in the literature. As I have already demonstrated in the previous section the advantages of multi-level models, here we can focus on why incident level, and to a lesser extent, individual level factors, are exerting such a significant impact. This research is not the first to document the importance of crime and victim characteristics; in a study conducted by Gourdriaan et al., (2006) investigating the effects of social cohesion, confidence in police effectiveness and socio-economic disadvantage. The influence of such characteristics remained virtually unaltered when different neighbourhood characteristics were added to their models. Furthermore, if we return to the literature covered in Chapter Two it becomes apparent that those variables most often cited as influencing reporting, such as the seriousness of the incident, acquiring injury, or having insurance are those which tend to be measured at the incident level in victimisation surveys.

In essence we are seeing that incident and individual level variables are having a greater impact than expected, though victim's experiences do seem to also vary significantly across neighbourhoods. The question then, is what does this mean for the existing theory? There now exists a substantial literature (see Leventhal and Brooks-Gunn, 2000) around neighbourhood effects, though in criminology the debate rests more squarely between proponents of individual oriented theories of crime, such as the Routine Activity and lifestyle patterns discussed in Chapter Two, and Social Disorganisation neighbourhood based arguments. To review, Routine Activity/Lifestyle Theory suggests that in order for a crime to occur, there must be a convergence in space and time of three factors, namely a motivated offender, a desirable target, and an absence of capable guardians (Felson and Cohen, 1978). Social Disorganization Theory on the other hand, posits that 'neighbourhood structural factors, such as poverty, residential instability, single parenthood, and ethnic heterogeneity, are of prime importance in explaining behaviour through their ability to thwart or promote neighbourhood organization (formal and informal institutions), which maintains public order' (Leventhal and Brooks-Gunn, 2000).

Based on the three patterns in the data discussed above that greater support is lent to theories focusing on personal attributes or lifestyle rather than neighbourhood characteristics. For example, Pattern A discussed above shows how, when examining the risk of both property and personal crime victimisation, variables related to individual characteristics seemed to have the greatest effect. A person's age, history of offending and marital status are all arguably related to one's lifestyle, particularly when we consider that those who are young, single, and with a history of offending are at much greater risk than those who are older, married, and on good terms with the law. One could feasibly argue that the other two variables which occur in this pattern, the urban/rural indicator, and SIMD, the level of deprivation, are in fact measures of the characteristics of neighbourhoods rather than individuals. Are individuals urban or are their neighbourhoods? Similarly, SIMD is composed of many indicators of deprivation. Unfortunately, as these variables are measured at the individual level in the SCJS, we *must* consider them at this level in order to avoid the errors of inference previously discussed in Chapter Three.

In addition to those variables related to lifestyle in Pattern A, the remaining two patterns also included variables relevant to these theories. Pattern C saw the effect gender played not only in victimisation risk, but in reporting behaviour as well as

service use and satisfaction. Pattern B also saw how perception, fear and difficulty sleeping exerted significant influence over reporting and service use. Although these factors may not be directly related lifestyle, a relationship is foreseeable. For, as was found in the qualitative research, age may have been related to successful coping in that older victims seemed less likely to suffer a loss of trust in others, or a sense of the world as safe and just as a result of their experience. However, this is a topic for further research. What is important to take away here is that together, the patterns present in the data suggests that lower level variables are exerting a greater influence than neighbourhood characteristics throughout the process of victimisation, even when, as in the model of service use, a uncommonly large amount of variance is accounted for at the neighbourhood level. Specifically though, in relation to the debate of individual versus neighbourhood factors associated with risk, those measured at the individual level are again found to exert the greatest influence. The resultant conclusion being that the greatest risk in victimisation may in fact arise due to factors associated with high risk individuals, rather than high risk neighbourhoods.

### *7.2.3 That emotional reactions to crime will play a significant role in the decision making and actions of victims.*

In the sections covered so far we have seen the importance of emotion as a reaction to crime begin to emerge. Pattern B above highlighted the significance of two emotional variables: fear and difficulty sleeping, as well as the perception of the crime. However the impact of emotions on decision making goes well beyond these three variables; influencing decision making and behaviour relevant to reporting behaviour, service use, as well as satisfaction with services. In this section I will first review the findings related to emotional impact and discuss their impact both theoretically and practically.

Firstly, let us review the emotional responses in the quantitative models. When looking at reporting, emotions played a major role in both models of personal and property crime though more of these variables were found in the model of property crime than personal crime. Whereas personal crime reporting was influenced by fear and difficulty sleeping, property crime reporting was additionally influenced by anger, shock, lost confidence and vulnerability. Service uptake was again influenced by fear and difficulty sleeping and in the model of satisfaction with services, having difficulty sleeping was again related to satisfaction, though in this case the association was negative, meaning

increased difficulty sleeping is related to lower levels of satisfaction, whereas receiving any type of emotional support was positively related to satisfaction. What's more, in the qualitative interviews over thirty differing types of emotional impact were reported, ranging from fear, insecurity, helplessness and depression to anger, aggression, anxiety and paranoia.

This review highlights a number a findings worthy of further discussion. Such as why, when considering the role of emotion in the various models described above, there are more variables reflecting emotional impact in the model of property crime reporting than personal crime reporting. That is, in the model of property crime we see fear, vulnerability, anger, and having difficulty sleeping all having substantial effects in addition to perceiving the incident as a crime. This is in contrast to the idea that personal crimes are more serious and will have a greater negative impact. Once again we see this is not necessarily the case. These results demonstrate how incidents such as burglary can also have a severe psychological and emotional impact on victims. One explanation for this finding put forward by Bard and Sangrey (1978) was however discussed previously in Chapter Two. These authors suggest that victims of burglary may be as adversely affected as victims of violence due to the connection a person has with their home. They see the home as an extension of the person, filled with intimate possessions and memories. Thus a violation of the home is also a violation of the self and a person who is robbed of an object that has a great sentimental meaning will suffer a deeper sense of violation than someone from whom expensive but insignificant things are taken.

This phenomenon was clearly demonstrated in victims interviewed during the course of this research, where for example, three female victims of housebreaking exhibited similar reactions such as vulnerability and fear, but also spoke of the violation of their sense of privacy and safety.

*'Whenever you're at home you don't really feel safe, even now, like its months ago that it happened.'*

*'After the burglary I was frightened, and I felt unsafe, because a lot of that was knowing how easy it was for people to get into the house.'*

*'It's a shock, it's just like, you feel sort of violated in a way...'*



In addition, one victim, a young male who experienced an attempted burglary was easily one of the worst affected victims in the sample. Excerpts from my conversation with him demonstrate numerous examples of rather severe emotional stress;

*'I couldn't sleep, I couldn't do anything, I couldn't watch tv, because every time I turned the tv on it was always something related to em, burglary or attack or whatever... I found that I couldn't stay in the flat on my own, I needed people there with me, and when they weren't there I had to go out... its a horrible, horrible feeling. Feeling like every time you step somewhere you're not safe... someone invaded my personal space, and came into my home uninvited, and every time I walk through the hallway, past the door, I always see him, I always feel the same fear, and I check my eye piece maybe 250 times a day or something, some outrageous number'*

These quotations together highlight some of the exact emotional variables represented in the quantitative models, such as difficulty sleeping, fear, shock, and vulnerability. A combination which reflects not only the violation felt as a result of the crime, but also the resultant distress. As discussed previously, the sense of distress is the likely mediator between emotional and psychological reactions to crime, and decision making and action. Golding et al., (1988) found the use of services to be mediated by distress. That is, those who experience more distress are more likely to decide in favour of utilising available services. In addition, the present findings suggest that the emotions indicative of distress may also influence the decision to report a crime as well as the evaluation of support services.

When it comes to making such evaluations, the importance of emotions is again reinforced. In this case, receiving help in the form of emotional support increased the odds of satisfaction by a factor of 2.538. Worth noting here also is that no other form of support had a significant effect on satisfaction. That is, neither help with reporting the incident, accommodation related support, nor advice and information were as important as emotional assistance. Furthermore, although we already know that having difficulty sleeping is negatively associated with support, all other emotional variables, though non-significant, were also negatively associated with satisfaction. So, these two variables, despite having opposing relationships with satisfaction, are ultimately addressing the same issue. That is, having emotional consequences as a result of a crime leaves people less likely feel they have received satisfactory support, however when they do receive this type of support, they are more satisfied than when they receive any

other kind of support, highlighting the importance of emotions in coping with crime in addition to decision making.

### 7.3 Methodological and Policy Implications

When taking together the above three sections of discussions, a number of recommendations for methodological improvements and improving victim policy in Scotland may be highlighted. In this section I will outline and discuss what I feel to be the most important lessons to be had from this research. Policy recommendations include: rethinking the label 'victim' in support services, revising some of the rules around claiming compensation, and the more timely and sustained delivery of support services. Methodological suggestions include the addition of a number of variables to the crime survey questionnaire and making lower level geographic data available for use in future research.

#### 7.3.1 Methodological Suggestions

One suggestion may be made based not solely on the results of this project, but on the research experience as a whole. That is, although the SCJS has many positive facets, it is lacking a few variables which may have proved significant in the present research had they been available. I am aware of the extensive time, energy, and funds put into the survey, yet I believe the addition of a few theoretically significant variables may attract more users to conduct secondary analysis of the survey data, thus making all the input worthwhile. First, the inclusion of a variable measuring perceived seriousness of the incident would be highly useful in the study of reporting behaviour, as well as service use. As mentioned previously in Chapter Two, similar crime and victimisation surveys such as the BCS, employ one such variable which measures a victim's perception of the seriousness of the incident on a scale of 1 to 20. This would have provided a more direct measure of seriousness than was used here, as well as a complimentary measure to the variable measuring whether or not the victim perceived the incident to be a crime.

Further questions pertaining to the aftermath of an incident could also prove helpful both theoretically as well as aid in the shaping of policy regarding victim support services. For example, although we have demonstrated here the significance of emotions

in the decision making and behaviour of victims, this is based solely on the use of the available variables, which simply ask if the victim experienced any of the emotions listed following the crime, and if so, which they felt most intensely. This is of course preferred over having no information about emotional or psychological consequences; however it is an oversimplification at best. In addition, there is no measure of when these emotions were felt. Did they occur immediately after the incident and subside relatively quickly, or did the victim suffer continual or long term emotional impairment as a result; information which could be crucial in shaping an appropriate response. Also potentially useful in shaping responses would be information about the level of social and/or familial support available to the victim. Again, although the survey does currently gather some information regarding support services used, as well as any unmet service requirement, there is an absence of any variable measuring actual or perceived levels of support despite considerable consensus in the literature (see Thoits, 1995; Silver and Wortman (1988) around the importance of social support in coping and health generally.

In addition, although the survey covers a substantial range of demographic information, there is no variable measuring educational attainment. This despite the fact that previous research by Norris et al., (1990) has found that crime victims tend to be more highly educated than non-victims and others (see Goudriaan et al., 2006) have found educational level to be a significant predictor of reporting crime to the police, where the less educated a victim is, the more likely they are to report. Thus, at present, we are unable to further investigate this relationship, not to mention the relationship between education and victimisation or service use. Furthermore, it is also possible that educational attainment may be related to the thought processes involved in victim decision making.

One final issue of methodological relevance surrounds the use of Intermediate Geography as our conceptualisation of neighbourhood. Although IG does in fact have much strength as a unit of neighbourhood, particularly that they were designed to reflect community member's conceptualisations (see Chapter Three); it is possible that by using a lower level of geography such as data zones or postcodes, research in the future may be able to uncover greater variation between neighbourhoods or clustering of victimisation in certain areas. Although the use of lower levels of geography would come with greater difficulties in protecting the confidentiality of participants, these issues could however still be addressed in future research should Scottish Government

make available the relevant data. Furthermore, by utilising such statistical techniques as geographically weighted regression, researchers could employ such data to determine which neighbourhoods across Scotland are prone to higher or lower levels of risk.

### 7.3.2 Policy Implications and Support Suggestions

A few final suggestions regarding the provision of support may be drawn from the results of this thesis. That is, in order for them to be effective, support services need to be delivered in a timely fashion, but also specifically address victims' concerns, and maintained over a longer period of time if necessary. Recall how the results of the quantitative model of service use demonstrated how victims who had sustained injury or experienced threat were more likely to use services; as were repeats or multiple victims. Furthermore, women, those experiencing fear and those having difficulty sleeping were also more likely to uptake available services whilst young people (under the age of 25) were less likely to do so. Similar in nature to results of previous research (see Simms et al., 2005), these results suggest that victims of more serious incidents, those involving threat or injury or resulting in fear and difficulty sleeping, are more likely to use services. This in turn suggests that those who are more severely affected are those most in need of services.

As such victims may be experiencing rather negative emotions and other consequences immediately following an incident, it is of the utmost importance that support be made available as a matter of urgency. In the aftermath of a crime, one can only hope that most people would have a family member or close friend with whom they could seek comfort, shelter and reassurance. However this is sadly not always the case. Therefore, if support is to be delivered at such crucial times, the opportunity to provide support at the first point of contact with the criminal justice system must be realised. Related to this, and also of concern, is the finding which demonstrates huge variability across neighbourhoods in the uptake of services. If residents of some neighbourhoods are finding it difficult to access services, accessing them in a timely manner is that much more unlikely.

One of the victims interviewed here, a young woman who had been violently robbed, told of how she did in fact meet with Victim Support, but only some two weeks after the incident had happened. What's more, she mentioned that it had been implied to her that

this was a relatively quick meeting. As a result of this time lapse, she found her meeting with VS to be rather unhelpful; she had already discussed, on numerous occasions with friends and family, what the service provider had wanted to talk about. Furthermore, she felt she was left with many unanswered questions,

*'...she was saying you know, that you're still in shock, and that I can tell you're still in shock, and I was like "How? and why? Tell me!"'*

They had told her she was in shock, but did not explain what exactly this meant; they told what she was feeling was normal, but not why, or what to expect as she worked on coping with the crime. Another victim, a young man who had been burgled spoke of his interaction with the police thus,

*'I think some things can be worded differently, it's fine for them to say he won't be back, it's another thing for you to actually feel he won't be back... I think I would have felt a lot better if they had said something like 'they won't be back however you are going to feel....' on top of saying that just say 'however, this is how you are going to feel.'*

Here again we see a lack of information about normal responses to victimisation. This young man was obviously frightened of the burglar's return, and although the police were in fact trying to comfort him, he instead took this as an indication that the fear he was feeling was uncommon. The experiences of these two victims is in line with previous research suggesting that victims want to learn how other fellow victims react to and cope with their situation (Taylor et al., 1993) and that they worry about whether or not their feelings of distress are normal (Wotman and Lehmer, 1983). It is difficult for a victim to know what the norms are for coping with this kind of traumatising event, and as such they want to know if what they are feeling is natural, and need reassurance to that end.

Following from this, the policy implication is that the availability of such information to victims in the immediate aftermath of a crime may serve to ease their worrying and distress. In addition, victims could be taught more about the long term impact that they may or may not experience, covering such things as displaced anger toward their loved ones, fear of being alone, or distrust of people more generally. This information would be most helpful if it was available as soon as possible. That is, perhaps rather than just providing a phone number for Victim Support at the initial point of contact, which may result in the passing of days or even weeks before further information is available,

responding police officers could provide some further form of information, be it in the form of a pamphlet, a simple conversation, or the on-site attendance of victim services. Furthermore, encouraging the development of support groups, whether in person or even an online forum, may be a fruitful endeavour. By encouraging victims to speak to others about their experiences they may have the opportunity to learn directly from other victims common responses, feelings and even coping techniques.

A second policy recommendation which may be drawn from discussions with victims, as well as the available previous research, is that in some scenarios the provision of support may be needed on a long term basis, rather than short one off meetings with volunteers. This is not to downplay the valuable input of the many volunteer providers working at organisations such as Victim Support, rather it is meant to highlight the fact that some victims require treatment and counselling well beyond the skill set of the typical volunteer or service provider. In fact, more than one interviewee mentioned seeing their General Practitioner (GP) to discuss how they were feeling after their incident. The perceived lack of support, and inadequate guidance or referral from GPs was startling. One victim even reported that his GP had told him he did not understand why he was there, this despite the fact that in conversation with me, it became clear that some three months on from his incident, the young man was still experiencing considerable distress and inability to function normally. Thus, it may be that victims who are in need of longer term counselling and/or therapy are not being recognised as such, either by volunteer service providers, or their GPs. Such findings further highlight the need for ongoing support; although symptoms such as hyper awareness, difficulty sleeping, fear and anxiety may be recognised in the time period immediately following an incident they may easily be written off as shock, and thus expected to subside in the days or weeks following. However, it is when these symptoms show no sign of abating, or even grow worse, that professional intervention may be required. This is not likely to happen though when an initial visit to a support provider or GP results in a 'you'll be fine, just call this number if you need anything' blasé response. Follow up appointments, or contact of some sort, should be used to detect long lasting symptoms, for as research suggests, even if a victim feels they do not need continual support, they do seem to appreciate the gesture, and the simple knowledge that someone cares (Dunn, 2007).

### 7.3.2.1 Awareness of 'Victim' Labelling

There is of course an ongoing debate in the literature amongst victim's advocates surrounding the use of the word 'victim'. Those particularly opposed to the term include members of the feminist movement who 'reject outright any claim to victim status because of concerns that taking on a victim identity would engender powerlessness and passivity, preferring instead the term *survivor*' (Condry, 2010). This is not a debate I intend to enter into, as both terms have, in my opinion, their shortfalls; victim implying weakness and pity, survivor not readily applicable to all crime types, such that describing someone as a survivor of car theft or even burglary seems ill fitted. Thus the debate over the appropriate terminology continues as an alternative is not readily available. That being said, one option adopted by some service providers such as the Victims and Survivors Trust (VAST; of Northern Ireland) or the Office of Victim and Survivor Rights and Services (California Department of Corrections and Rehabilitation) have combined the two terms in their respective titles. I do not intend to suggest that this is a perfect solution, but it does however even the playing field; combining the connotation of innocence and having suffered wrongdoing of the word victim, with the strength and autonomy associated with the word survivor. However, instead of debating the relative pros and cons of various synonyms, I would like to draw attention to the label for a different reason: the seeming importance of the concept in the coping and recovery process.

Although more research is required into this phenomenon, findings from both the quantitative and qualitative aspects of this thesis support the notion that people do not like to define themselves with the word 'victim'. Results obtained from the quantitative analysis demonstrate how large proportions of both property and personal crime victims did not consider what happened to them to be a crime, and interview participants utilised a number of techniques of selective assessment to minimise the crimes they had experienced. Numerous reasons, both personal and social, exist for this aversion to the concept of the 'victim'. Personally, the adoption of the label requires one to accept the wrongs done to them, resulting in a loss of self-confidence, autonomy and control. According to both Janoff-Bulman's theory of selective assessment and Bard and Sangrey's model of the crisis reaction, denying or avoiding the state of victimhood and the label attached to it may have serious implications for the path an individual follows in their coping and recovery. Janoff-Bulman's outlines a number of strategies that victims may use to either outright deny their victimhood, or to downplay the

seriousness of the incident, strongly suggesting the desire to avoid being labelled a victim. This theory was generally supported in the qualitative interviewing with victims conducted here, with numerous examples of downplaying and dismissing incidents by victims (see Chapter Six for examples). Furthermore, at least one participant was put off support services due to his perception of them being for 'victims'

Socially, victims are taken to be somehow unsavoury, having a "pariah identity", a status which reflects the tendency to blame victims in order to sustain the belief that victims of misfortune deserve what happens to them, described previously as Lerner's (1980) 'belief in a just world' (Rock, 1998). Following this vein, Wortman and Lehman (1983) suggest that 'many victims are stigmatized as such due not only to the unsettling feelings of vulnerability and helplessness they evoke in others, but the common belief that we live in a world where people get what they deserve and deserve what they get.' This notion is drawn from labelling theory, in particular Lemert's (1951) conception of 'secondary deviance.' Some research with young offenders supports this notion, where for example, findings from the Edinburgh Study of Youth Transitions and Crime found that more than half of those youngsters convicted of a crime, many (59%) had previously been known to the Children's Hearing System (CHS) at some point. Additionally, convicted youngsters with a hearings record were significantly more likely than those with no prior history of hearing involvement to have a higher number of convictions and charges proved, have convictions for violence, and have been sentenced to a period in detention or a community penalty (McAra and Mcvie, 2007). Kenney (2002) has also elaborated on the typically offender based concept of deviance, extending it theoretically by identifying a parallel labelling process for victims

Many victims who are labelled in such a way find that once applied, the status is almost impossible to reverse. In particular, the work of Lerner (1980) suggests that if an individual can believe that others do not suffer unless something is wrong with them, or there are weaknesses in their behaviour, he or she will feel protected from undeserved suffering in the future. Other researchers have highlighted the dangerous potential of this type of thinking; the 'victim' label and the resultant form of secondary victimization created by the social reaction to the primary victim's status. That is, the victim may adopt this secondary status, which in turn may lead to that status becoming entrenched and central to that person's identity whose original victimization may well otherwise have been short-lived (Condry, 2010). Furthermore, since others respond to victims on the basis of the label, victims themselves may come to internalize these responses and



perceptions, and begin to think of themselves in the same way (Taylor et al., 1983). Indeed, such individuals may feel social pressure to withdraw further into the world of similar victims, making a change in status even more difficult. "Whether or not the victim has lost self-esteem due to the primary victimizing circumstances, then, the secondary victimization of social labelling, rejection, and isolation can itself lower self-esteem" (Taylor et al., 1983). In some cases, social constraints owing from the label of victim, such as stigmatization, uncertainty, and misconceptions about appropriate response (Wortman and Lehman 1983), can inhibit people from discussing their traumatic experiences and increase the positive association between intrusive thoughts and depressive symptoms (Kenney, 2002).

#### 7.3.2.2 Compensation Claims Rules Need to be Updated

The results of both the quantitative and qualitative aspects of this research suggest the rules surrounding who may seek compensation following an act of victimisation may be in need of considerable revision. To review, I am here referring to CICA's ability to deny compensation to victims if it deems their behaviour before, during, or after the incident to be unsavoury; if they have a criminal record, if a victim fails to cooperate and/or fails to notify the police or other organisation. Thoits (1995) points out that money is an obvious resource whose potential ability to assist coping and buffer stress is often overlooked, despite everyday observation suggesting that people often draw upon their finances when coping with a variety of problems. Therefore the practice of denying it to a substantial proportion of victims is certainly worth examination.

A number of serious problems are inherent in this policy, the first of which relates to the fact that only victims of violence are eligible for compensation. This thesis, as well as the research of others (see Bard and Sangrey, 1987) has clearly demonstrated that victims of non-violent crimes such as housebreaking are equally prone to serious psychological and emotional impairments as a result of their experience. Here, a model of the reporting of property crime to the police included many emotional variables as significant predictors of reporting, including fear, anger, shock, difficulty sleeping and a loss of confidence. More so, interviews with victims of property crime reified the commonality of such serious psychological impairment. In fact, one young male victim of an attempted housebreaking was probably the most severely affected victim of the sample, possessing symptoms which, in my mind, would have easily met the diagnostic

criteria for PTSD. Furthermore, every single victim in the sample detailed the financial difficulties resulting from their experiences, whereas only one, a victim of violent assault, received any form of compensation. This is despite the fact that financial hardship was commonplace, resulting primarily from lost wages and/or lost and/or damaged property.

In addition, not only are victims excluded from compensation if they have not experienced violence, they may be excluded based on their behaviour and criminal record. This too is seriously problematic in light of the current findings (and again, previous research such as Smith, 2009 Fattah, 1992; Miers, 2000) providing further support for a link between victims and offenders. In the model of personal victimisation presented in Chapter Five, having a history of offending behaviour was one of the strongest predictors of personal crime victimisation. This high cross over between victims and offenders means few may be eligible for much needed compensation. Fattah (2003) also points out that 'those persons who are in a marginal social position have both a high risk of being victimized and also difficulties in being recognized as victims;' the practical implication being that those victims who may benefit most from financial assistance, may be the least likely to get it. For example, a person with a history of offending who is victimised may be less likely to report a crime when it does occur, which in turn results in them being cut off from victim support services and financial compensation; thus propagating the individuals inability to remove themselves from future victimisation risk.

By refusing compensation to victims who have been lucky enough to escape their ordeal without physical injury suggests that victims whose injuries are instead psychological in nature are less serious. What's worse however is denying support to victims based on their previous behaviour or criminal record, essentially a form of victim blaming. In his research Strobl (2011) discusses the importance of perceived social support and its positive correlation with effective adjustment; the act of denying some victims compensation may thus have the no doubt unintended, yet unfortunate consequence of suggesting that unless you are completely innocent and have sustained physical injury, you are not worthy or deserving of compensation; that what you are feeling is not normal or necessary. Such a message may be hurtful to victims, and as such could in fact constitute an institutionalized form of secondary victimisation. That is, rather than alleviating the grief and powerlessness of victims, the judgement and withholding of support to victims may sometimes contribute to their plight. Strobl (2011) highlights

that for successful coping to occur, it is important that there is no backlash from people or institutions in the victim's social context that undoes any positive progress. How one is supposed to effectively cope when the very people and institutions responsible for assisting victims instead stigmatize them as deviants and blame them for their plight is a tricky question for policy makers to answer. If we are to make progress in the provision of support to victims of crime, it is necessary to move beyond the imaginary and harmful concept of the 'ideal' victim, and instead acknowledge the facts that a) victims of any and/or all crimes may need financial support, and b) by not supporting those who do not meet the unrealistic ideal, we are in essence propagating the ongoing process of victimisation by denying help and applying blame.

#### 7.4 Limitations and Directions for Future Research

As with any research project, there are of course inherent limitations in the generalizability of the results presented here. This should not however take away from the results, but be acknowledged and addressed in future work. Like the research as a whole, the limitations of this project may be divided into those derived from either the qualitative or quantitative aspects respectively. The most obvious limitation comes from the lack of generalizability of the qualitative data due to the relatively small (n=10) sample size. Although every effort was made within the researcher's ability to gain access to data the sample was neither random nor clearly representative of any specified population. The group was however fairly evenly split between men and women, young and old, property victims and victims of violence. Hence, the ultimate conclusions are less likely to carry an obvious bias toward any specific demographic group. Furthermore, ten is not an uncommon sample size for certain types of qualitative analysis, specifically IPA. Still, broader generalizations must be qualified with this in mind.

Limitations arising from the quantitative side of things are slightly more complicated in that the analysis was of a secondary dataset and any and all limitations inherent in the SCJS are carried over to the current project. That being said, this is not the place to have an in depth discussion of survey methodology; for that, the reader is referred to either the Technical Report for the SCJS 2008/9 or Anderson (1999) for a detailed description of the SCJS methodology, and to Hope (2007) for a discussion of why understanding the data generating process is crucial. There is one further aspect of the SCJS design that is

noteworthy: the absence of a number of variables which may be found in other crime/victim surveys, which would have added substantially to the current analysis. One, previously mentioned, is the lack of a variable (included in the BCS) measuring the perceived seriousness of the incident. The others of course are those mentioned in the policy section above, namely a variable measuring education, as well as one looking at coping styles and/or resources.

It must also be mentioned that the present research cannot comment on the debate in the literature on the effects of risk heterogeneity versus event dependence due to the use of a logistic model. It would have been desirable (according to Hope, 2007) to model the entire distribution of victimisation as, theoretically speaking, 'the discrete outcome approach reifies the *status* of 'victim' as a stable quality at the expense of conceptualising the *process* of victimisation.' Some alternatives to the logit model have been suggested in the literature, including the bi-variate probit (Osborn et al., 1996), the negative binomial (Tseloni, 1995; 2000; 2006; Osborn and Tseloni, 1998) and the zero-inflated Poisson (Tseloni et al., 2010). Future work could thus build on the current analysis by more fully taking into account the process of victimisation as a series of hurdles whereby a 'positive' outcome (where an event occurs) at any stage of the process allows one to continue to the next. For example, a person would not report a crime if they were not victimised, and a victim cannot be satisfied with support services if they did not receive any. Moving from one stage in the process to the next therefore results in a reduction in the number of cases available for analysis and may create what has been coined the 'sample selection problem' (Heckman, 1981). By using one of the aforementioned techniques, this problem may be avoided. For example, the bi-variate probit model would allow the process of victimisation to be specified via a multivariate hurdle model with censoring which would allow for the identification of two binary outcomes with the second being conditional upon the first (Osborn et al., 1996).

In a related vein, the process of victimisation is likely to be affected by the number of crimes a victim encounters, and whether said crimes were repeats of the same crime type or multiples of different crime types. It is possible that previous experiences with the criminal justice system and/or victim services in relation to previous incidents of victimisation could influence the actions and decisions of victims throughout the process. That is, a victim who had a negative experience with the police previously may be less likely to report a crime if it were to happen again. Thus, although this work was able to examine the effect of whether or not the incident was part of a series, the

weakness remains that it was unable to examine how previous contact with the criminal justice system and victim support services in cases of multiple or repeat victimisation may have affected the process of victimisation.

These are of course things that could be easily remedied in future research, where there are abundant opportunities to further this line of investigation. It has already been approximately four years since the data used in this project was collected therefore it would be advantageous to repeat the analysis with newer sweeps of the survey, or alternatively, with data from outside of Scotland, such as the BCS, which does include the desired variables measuring education and perceived seriousness. Even better though, would be the linkage of numerous years of survey data to form a quasi-longitudinal dataset that would allow for the investigation of how trends in risk, reporting and service use have changed over time, as well as whether such changes are due simply to changes in the population versus actual changes in behaviour. Furthermore, the analysis in this thesis was somewhat limited by the time allowed a doctoral thesis and the computing power of a doctoral students ageing laptop computer. In order to lend greater confidence to the results here, follow-up research might also expand upon the current models so that possible interactions between neighbourhood characteristics, victim characteristics and crime characteristics are taken into consideration whilst also rerunning the random intercept models used here as random slopes models. Finally, the findings presented here have shed light on some new and potentially very important factors in the process of victimisation: the importance of how a victim perceives an incident and the label they attach to it (crime or not) and to themselves (victim or not). Further research, ideally both qualitative and quantitative in nature, could seek to further address this finding.

## 7.5 Conclusions

Over the course of the three and half years over which this thesis was compiled, I have spent time conversing and learning from government officials and statisticians, academic researchers, representatives of non-profit sector support services, colleagues and students, and of course, victims of crime. Highlighting what I feel to be the most important messages to take away is no easy task, as I have taken away so much. However, when I think of the victims I spoke with, I can try to share what I have learned

that could possibly improve their lives for the better, and improve the lot of victims more generally.

Three key things to take away from this thesis are: the process of victimisation is a long and complicated affair. It does not end once the incident is over, once the police have been notified, or even when an offender is found guilty and punished. The process of victimisation also includes the process of coping and healing, one that may take many years to complete. The criminal justice system is a major component of this process, and should seek to aid, rather than hinder or hamper the healing process, should support and assist rather than add to the burden of victimisation.

Secondly, it is important to highlight the role that emotions and moral judgements seem to play in the aftermath of victimisation. We saw how emotions equally affect victims of property crime and personal crime. We saw how a pattern of emotional characteristics exerted the greatest influence on the decision to report crime and to make use of available services. Finally, we saw how coping with the emotional aftermath of crime may actually motivate victims to deny the significance of the incident.

Finally, there is a complex interaction between individual and society inherent in the nature of crime and victimisation, apparent in the interlinking of patterns across the process. Although it has been evidenced that variation in risk, reporting and service use is largely due to variation at the individual level, significant variation across neighbourhoods does exist. What's more is the largely social issues surrounding victimisation risk; for although deprivation and offending are measured at the individual level, they are in fact indicative of greater social malaise.

As a whole, this thesis has presented a more in-depth analysis of the entire process of victimisation than any previously available. It has achieved the major objectives envisaged in the introduction by moving beyond the 'double hurdle' conceptualisation of victimisation and examining it instead as an ongoing process. It has reviewed the existing literature on the impact of crime, the risk of victimisation, reporting crime to the police, and service use and non-use, and integrated the existing theory with the present findings. It has taken into account the experiences and opinions of victims themselves, and considered in depth which variables are the key determinants in the shaping of victim's experiences.

It is greatly hoped that this piece of work may bolster the ongoing re-emergence of the victim in criminal justice policy, and bring some much needed attention back to the study of crime victims in criminology; too long have they been an afterthought. Let this thesis be one step (see Christie, 1977) in returning conflicts to their rightful owners, the victims.

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Dear Sir/Madam,

I am writing to ask if you would be willing to participate in a research project which is investigating the experiences of victims of crime in Scotland. This research is being carried out by Stephanie Fohring, a PhD student at the School of Law, the University of Edinburgh in association with Victim Support Scotland. The project is funded by the Scottish Government and the Economic and Social Research Council (ESRC). Stephanie is specifically interested in the impact that crime has on the lives of people who experience it as well as their subsequent experiences with the police and victim support services. The research will also address how these experiences shape perceptions of the criminal justice system.

Participation in the study is completely voluntary and would require you to complete a short interview with the researcher based on your experience as a person affected by crime. Interviews are expected to be no more than 30 minutes in length, to be conducted either at the University of Edinburgh, your home, or wherever you would feel most comfortable. All data collected in the interview will be stored anonymously, and will not be linked to you in any way. The information you provide will be used, along with that of other participants, in Stephanie's doctoral thesis, and may be used in any resulting publications. Also, as this research is funded by Scottish Government, it will be used to inform the New Scottish Strategy for Victims of Crime.

Furthermore, this research may potentially have a direct impact on service provision to victims of crime as the outcomes will also be shared with Victim Support Scotland in order that they may amend service provision in accordance with the findings. Thus, by sharing your opinions and experiences you will have the opportunity to influence victim policy at a local as well as a national level and improve the experiences of people affected by crime in the future.

If you think this research is something you would like to take part in please contact me using the information provided below to arrange an interview. An information sheet with more details of the research is attached to this letter. If however you would like more information before agreeing to participate, please feel free to ask any questions.

I would like to thank you in advance for your time and consideration, and hope to work with you on this exciting program of research.

Sincerely yours,  
Stephanie Fohring

**To Arrange an Interview Contact:**

Stephanie Fohring  
Email: [s.j.fohring@sms.ed.ac.uk](mailto:s.j.fohring@sms.ed.ac.uk)  
Phone: 07942616020  
Post: School of Law (Research Annex)  
15 Buccleuch Place, Edinburgh  
EH8 9BH

**For Support and Information Contact**

Victim Support Edinburgh  
5 Nicolson Square, Edinburgh  
EH8 9LN  
Tel: 0131 668 2556  
Fax: 0131 668 2566  
Email: [victimsupport.edinburgh@victimsupportsco.org.uk](mailto:victimsupport.edinburgh@victimsupportsco.org.uk)

Dear (insert name)

I would first of all like to thank you for your previous participation in the Scottish Crime and Justice Survey. Your time and effort is greatly appreciated. Without the support of people like you the valuable information gathered in the survey and the knowledge derived from it would not be possible. As you have previously supported research into crime and justice in Scotland, I am hoping that I can count on your continued support.

Our records indicate that you would be content to be re-contacted as a possible participant in future research in this area. As such, you are being invited to participate in research investigating the experiences of victims of crime in Scotland. I (Stephanie Fohring) am conducting this research as part of my doctoral studies in the School of Law, the University of Edinburgh. My research is funded by the Scottish Government and Economic and Social Research Council (ESRC). I am specifically interested in the impact that crime has on the lives of people who experience it as well as subsequent experiences with the police and victim support services. The research will also address how these experiences shape perceptions of the criminal justice system.

Participation in the study is completely voluntary and would require you to complete a short interview with the researcher based on your experience as a person affected by crime. Interviews are expected to be no more than 30 minutes in length, to be conducted either at the University of Edinburgh, your home, or wherever you would feel most comfortable. All data collected in the interview will be stored anonymously, and will not be linked to you in any way. The information you provide will be used, along with that of other participants, in my doctoral thesis, and may be used in any resulting publications.

By participating, your opinions and experiences may have the opportunity to influence victim policy at a national level and improve the experiences of people affected by crime in the future.

If you think this research is something you would like to take part in please contact me using the information provided below to arrange an interview. An information sheet with more details of the research is attached to this letter. If however you would like more information before agreeing to participate, please feel free to ask any questions.

Sincerely yours,  
Stephanie Fohring  
Doctoral Research Student  
School of Law, the University of Edinburgh

**To Arrange an Interview Please Contact:**

Email: [s.j.fohring@sms.ed.ac.uk](mailto:s.j.fohring@sms.ed.ac.uk)

Telephone: 07942616020

By post: Scottish Centre for Crime and Justice Research,

The University of Edinburgh

15 Buccleuch Place

EH8 9LN

## Research Consent Form

This research is being conducted as part of a broader study exploring victimisation in Scotland. This study is part of work for a PhD in Criminology at the University of Edinburgh. The research is funded by a grant from the Economic and Social Research Council (ESRC) and the Scottish Government. The aim of this phase of the research is to better understand the impact crime has on victims and their experience of the Criminal Justice System. Interviews will be conducted by the researcher, Stephanie Fohring. Interviews will be confidential, and transcripts will be anonymised.

Please can you read the following statements and indicate if you agree.

I have been given a summary of the wider research project and been given an opportunity to ask questions about the research  
YES / NO

I understand that participation is voluntary and I am free to stop the interview at any time.  
YES / NO

I agree that this interview will be recorded and the audio recording will be retained until the end of the research project when it will be destroyed.  
YES / NO

I agree that the audio recording will be transcribed into an anonymised text document and this transcription will be retained until the end of the project.  
YES / NO

I agree that my name and any other names of people I mention will be removed from the transcript and alternative names used to protect anonymity.  
YES / NO

I agree that selections from the transcript, at the discretion of the researcher, may be used in any publication, papers or presentations arising from this or related research projects.  
YES / NO

I agree to take part in this research study

Signed.....

Date.....

## Research Questionnaire:

The interview will start with an introduction to myself and my research. At this point, I will confirm that the participant knows they are free to stop the interview at any time, and skip any question they wish. Following this, I will ask the participant to sign a consent form.

### Section 1: About the incident and impact

- 1) In the SCJS/at VSS you indicated that you have been the victim of a crime. Could you tell me a bit about what happened to you?
- 2) Any follow up question to 1a ie: How long has it been since the incident? Was this the only time this ever happened?
- 3) Have you ever been the victim of any other incidents of crime?
- 4) Thinking back to the time immediately following the incident mentioned in 1a,, how would you say it affected you? For example, was there any negative impact on your life?
- 5) Any follow up question to 2a ? (For example: injury, financial difficulties, time away from work)
- 6) Now, more generally, do you think the incident has had any long term impact on you? For instance, is there any part of your life still affected by what happened to you?
- 7) Is there anything else you wish to tell me about how the incident has impacted on your life?
- 8) At any time did you feel at all responsible for the crime? If so, how?

### Section 2: Following the Incident and involvement in Criminal Justice System.

- 1) Did you report the incident to the police? Could you tell me a bit about what influenced your decision whether or not to report?
- 2) Follow up questions to 1a? (Exploring the decision making process in detail, for example: previous experiences of dealing with the police?)
- 3) Did the type of crime you experienced have an impact on your decision to report?
- 4) If reported:
- 5) Could you tell me a bit about your experience with the police? Would you say it was a positive or a negative experience?
- 6) Is there anything the police could have done to improve your experience? (Such as providing you with more information, being more sympathetic?)
- 7) Did the incident result in a court case?
- 8) Did you have to attend court? If yes, could you tell me a bit about that experience? Was it positive or negative?
- 9) Is there anything the court could have done to improve your experience? (again, more information etc)

If unreported:

- 1) Could you tell me more about why you did not want to report the incident to the police?
- 2) How likely would you be to report incidents in the future?

- 3) Is there anything that the police (or any other organization) could do to encourage you to report incidents in the future?

### **Section 3: Receiving Support Following the Incident**

- 1) Did you receive any kind of help, advice or support following your experience of crime?
- 2) If yes, from whom?
- 3) If yes, could you tell me about how you came to this support? (were you referred by the police?)
- 4) If you were referred by the police, do you think this is the best way for victims to get support?
- 5) Would you have liked a system for getting support that did not involve the police?
- 6) Could you tell me about the type of support you received? (emotional, financial, information?)
- 7) Did you get the kind of support you wanted?
- 8) Did you get it when you wanted it?
- 9) Was the support you received helpful? In what way?
- 10) Was, or is there, any type of support or service you would have liked to receive but was unavailable? If so, what?

If no support:

- 1) If you did not receive support, at any point were you offered it but declined?
- 2) If you did not receive support, would you have liked to? What kind of support?
- 3) Looking back, do you think some form of support may have helped you?

### **Section 4: Concluding Remarks**

All participants:

- 1) Generally, how do you feel about the level of support available to victims of crime?
- 2) Follow up/clarify any previous questions.
- 3) Is there anything else at all you wish to tell me about your experience that you feel is important?
- 4) Generally, how do you feel about the ability of the police to solve crime?
- 5) How confident would you say you are in your local police service? (very, somewhat, not at all)

### **Interview End.**

Following the interview, participants will be asked if they have any questions about the interview or the research. I will leave them with my contact information if they have any questions or concerns in the future. Participants who would like it will also be provided with contact information for Victim Support Scotland.



