

**The continuum of sexual aggression:  
Discriminating between sexual  
murderers and rapists.**

**by**

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## **ABSTRACT**

The study of sexual homicide has been of interest to clinicians for over a century without any clear consensus on its causes. Consequently, it remains problematic for professionals to accurately assess and treat offenders convicted of such crimes. This thesis aims to explore the behavioural components of sexual murderers dimensionally, and to examine their characteristics to discriminate both between sexual murderers and rapists and within sexual murderers. It aims to develop an explanatory framework for the understanding of sexual homicide with a view to inform risk and ultimately treatment.

A general overview of the understanding of sexual murder throughout the literature is detailed in the introductory chapter. The difference between sexual murderers and rapists is systematically explored in Chapter 2 in an attempt to determine whether sexual murderers differ from rapists in terms of personal characteristics. The results indicated important themes which could aid assessment, formulation and treatment, despite the scarce literature and methodological limitations.

Sexual murder has often been associated with sexual sadism. Chapter 3 is a critique of the Severe Sexual Sadism scale, the results of which highlight a need for a dimensional rather than categorical approach to understanding sexual offending, and in particular sexual homicide. Consequently, Chapter 4 consists of an empirical research study exploring the development of a dimensional model that allows for discrimination within sexual murderers, as well as between sexual murderers and rapists. The final chapter explores the implications of the finding of this thesis both in the current evidence-base and on practice, as well as considering further research.

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## **CHAPTER ONE:**

### **Introduction**

# 1. INTRODUCTION

## 1.1 Defining ‘sexual murder’

*“All definitions are arbitrary. [...] A more formal, heuristic desideratum is that it actually influence theorists and researchers to progress in their work”*  
(Guttman & Greenbaum, 1998, p. 13)

Sexual homicide, as it stands, is not legally recognized as a formal crime (James & Proulx, 2014). Because the sexual component is considered to be secondary (Schlesinger, 2003), the crime is often classified as a homicide rather than a sexual crime. Consequently, sexual murderers are usually convicted of murder or manslaughter (Higgs, Carter, Stefanska & Glorney, 2015; Liem & Pridemore, 2012; Soothill & Francis, 2012). Furthermore, those convicted of such crimes are often detained at Her Majesty’s pleasure, thus for an indeterminate length of sentence (Clarke & Carter, 2000). Sexual murder cannot, in and of itself, be defined as a single crime. Rather, sexual murderer is a cluster of specific activities contained within the all-encompassing label of “sexual murder”. Sexual murder should therefore be defined as a general concept, within which exists a level of variation and idiosyncrasies. As a result of the complexity of the crime, therefore, it is unsurprising that there exists no consensus on a universal consistent definition of the term “sexual homicide” (Kerr, Beech & Murphy, 2013; Schlesinger, 2003) despite some definitions having been offered (e.g. Burgess, Hartman, Ressler, Douglas, & McCormack, 1986; Meloy, 2000; Schlesinger 2007),

Definitions of sexual murder have been proposed over the years, and have evolved in their complexity and conceptualization of the crime. This can be observed in the many different terms used over time, including lust murder (Kraft-Ebing,

1892), sadistic lust murder (De River, 1958), sadistic murder (Brittain, 1970), erotophonophilia (Money, 1990), and lust killing (Malmquist, 1996). Burgess et al. (1986) defined sexual murder as resulting from “*one person killing another in the context of power, control, sexuality, and aggressive brutality*” (p. 252).

The presently most widely used definition of sexual murder is the Federal Bureau of Investigation’s (FBI) definition (Ressler, Burgess & Douglas, 1988). According to the above, a homicide has to include the following elements in order for it to be considered sexual in nature: victim’s attire or lack of attire, exposure of the sexual parts of the victim’s body, sexual positioning of the victim’s body, insertion of foreign objects in the victim’s body cavities, evidence of sexual intercourse (oral, vaginal and/or anal), and evidence of substitute sexual activity, interest, or sadistic fantasy, such as mutilation of the genitals.

## **1.2 The scientific study of sexual homicide: challenges and pitfalls**

As outlined above, it is not currently possible to have a definition which accurately and reliably identifies all sexual murders. Due to the lack of standardized clear definition and legal classification, it is currently difficult to identify the exact prevalence of sexual homicides (Chan & Heide, 2009; Schlesinger, 2003). In the United Kingdom and North America, sexual murder is not classified as a sexual crime, but rather is classified as a homicide (Chan & Heide, 2009). This in part results from the sexual behaviour not always being apparent (Oliva, 2013) or the sexual interest not always being associated with penetrative sexual acts (Porter, Woodworth, Early, Drugge, & Boer, 2003). As a result, the statistics estimating sexual homicide rates are infrequent and may be misrepresentative. Given the extreme rarity of its

occurrence, the difficulties associated with conceptualizing the crime and the heterogeneity of this group, it is unsurprising that empirical studies have struggled to be generalizable and representative of the population of sexual murderers (Chan & Heide, 2009).

Sexual murderers have been found to be a diverse group who has offended against victims of various ages and sex (Malmquist, 1996; Prentky, Barbaree & Janus, 2015; Proulx & Sauvêtre, 2007). As a result of the complexity and diversity of their behaviour, it is at times crucial to contextualize sexual homicide both culturally and historically (Soothill, 2013). As such, studies of sexual murder must not only consider the behaviour itself, but also the societal context within which it occurs (FBI, 2005). In addition to the above difficulties in conceptualization, the sexual element of the crime may not always be readily observable and available (Folino, 2000). Consequently, a potential categorization as homicide stands in the way of convictions identifying offenders' motivations for their crime. Accurate recording of the relevant information by both the penal system and mental health records would enable sexual murderers to be operationally identified, resulting in appropriate interventions being offered.

In comparison to studies exploring sexual offenders convicted of rape, and as a result of the evident heterogeneity amongst sexual offenders, empirical studies exploring sexual murder and their subsequent outcomes remain in their infancy (Oliver, Beech, Fisher & Beckett, 2007). The diversity of factors, for example victim type, has not always been reflected in empirical studies. For example, Beauregard, Stone, Proulx and Michaud (2008) found current empirical studies focus most

frequently on adult female victims. Furthermore, studies have generally focused on single case studies or those who have attracted media attention (Oliver et al., 2007).

### **1.3 Classification in sexual offending**

Classification is at the root of theory building (Guttman & Greenbaum, 1998; Knight & Prentky, 1990) and thus key to developing an understanding of a psychological phenomenon. Throughout the scientific literature, researchers have attempted to organize criminal behaviour into clusters of homogenous offender groups in order to systematize treatment and disposition decisions (Byrne & Roberts, 2007). Furthermore, Robertiello and Terry (2007) have emphasized the importance of identifying motivations and offender characteristics as a means of reducing recidivism.

Early attempts at classifying criminal behaviour were based on phenotypic characteristics of those committing particular crimes. For example, Lombroso's publication of *L'uomo delinquente* (1876/2006) suggested that criminals had an intrinsic propensity to crime observable through distinct physical and biological characteristics. Subsequent approaches included a focus on environmental and social factors (e.g. Ferri in the 1900s) as well as classifications based on clinician experience and observations (Rasmussen, 2004). These classification attempts are referred to as typologies, namely classification schemes that provide a framework within which to analyse offending behaviour (Robertiello & Terry, 2007).

Clinically derived typologies such as Groth, Burgess and Holmstrom's rape typology (1977) were followed by an attempt to refine existing typologies with statistically derived but clinically relevant typologies (e.g. Knight & Prentky's 1990

rapist typology). These demonstrated the feasibility of empirical approaches to the study of criminal behaviour, and were consequently followed by later endeavors to operationalize models of sexual offending with the hope to improve clinical understanding of the sexual homicide phenomenon (Sewall, Krupp, & Lalumière, 2013) being empirically-grounded.

Whereas early efforts focused on typological approaches to classifying sexual offenders, more recent strategies have evolved from univariate approaches to multivariate models (Salfati & Taylor, 2006). The latter identifies dimensions rather than typologies, and as such explores interactions between predictor variables. Utilizing dimensions enables researchers to combine both knowledge from previous empirical research, theoretical constructs, and hypothetically important variables (e.g., Stefanska, Carter, Higgs, Bishopp & Beech, 2015).

#### **1.4 Sexual murder, sexual sadism and psychopathy**

When reviewing the existing literature on sexual homicide, both the concept of sexual sadism and psychopathy appear to have a complex association to sexual murder (Roberston & Knight, 2014). Whereas some sexual murderers may be psychopathic and others distinctly sadistic, some sadists are psychopaths but not all sadism is psychopathic. Consequently, whereas both of these concepts contribute to our understanding of sexual homicide, it is important to acknowledge the complexity of the concepts themselves and their underlying components. It has been noted that the existing literature has at times attempted to simplify the complex phenomenon of sexual homicide (Ressler et al., 1988), rather than considering its occurrence along a

continuum of interacting psychological factors, namely motivation, behaviour and sexual interest.

As well as over-simplification, one has to be careful not to over-emphasize the role of sadism and/or psychopathy in sexual homicide. For example, despite the number of sadistic sexual murders being low in comparison to sexual murderers without a sadistic motivation (Knoll & Hazelwood, 2009), Oliver et al. (2007) report that studies have tended to focus on this subgroup. Furthermore, a number of studies investigate the role of psychopathy in sexual homicide (e.g., Declercq, Willemsen, Audenaert & Verhaege, 2012; Myers & Monaco, 2000; Porter et al., 2003).

### **1.5 Assessment and treatment of sexual murderers in England and Wales: an overview**

As aforementioned, as a result of legal classifications, it is difficult to differentiate and/or identify those offenders convicted of a 'simple' homicide compared to those convicted of a homicide within which exists a sexual component. Thornton (1997) reported that prior to the introduction of the Sex Offender Treatment Programme (SOTP) within prisons, 50% of life-sentenced prisoners released between 1972 and 1991 with a conviction of either arson or a sexual offense were either recalled or reconvicted. Currently, those convicted of life sentences are handed a "tariff", or a minimum length of time to be served in prison. Release following expiry of this tariff is entirely dependent on the offender's ability to demonstrate that they have satisfactorily and successfully reduced their risk (Clarke & Carter, 2000).

An area of crucial importance in the assessment of rapists and sexual murderers is the assessment of the risk they pose towards others, as well as the assessment of

their need and progress following treatment. The assessment of sexual murderers has, in part, been drawn from research on the behavioural and psychological characteristics of sexual murderers. These include, for example, emotional loneliness, beliefs of sexual entitlement, the situational context, victim type, type of violence used, and presence of psychiatric illnesses such as personality disorder. Thornton (2000) identified four risk domains: Domain 1, deviant sexual interest, comprised of sexualized violence, sexual preoccupation, and other offence-related sexual interests; Domain 2, pro-offending attitudes, comprised of adversarial sexual attitudes, sexual entitlement, rape-supportive beliefs, and offenders' view of women as deceitful; Domain 3, social competence problems, comprised of grievance thinking and lack of emotionally intimate relationships with adults; and Domain 4, self-management difficulties, comprised of lifestyle impulsiveness, poor cognitive problem-solving, and poor emotional control. These four core domains are reflected in the risk assessment currently used in the Prison Service, known as the Structured Assessment of Risk and Need (SARN, Mann, O'Brien, Rallings, Thornton & Webster, unpublished, as cited in Webster et al., 2006), to assess the effectiveness of SOTP (Beech et al., 2005).

Furthermore, the SARN was used as part of the Dangerous and Severe Personality Disorder dataset as a pre and post-assessment effectiveness measure (Hogue, 2009).

Treatment for sexual murderers has tended to be provided alongside homicidal offenders whose crime does not include a sexual component (Higgs et al., 2015).

Furthermore, within more recent prison-based treatment programmes, sexual murderers have been included in treatment targeted at sex offenders in general, thus including rapists and those who sexually offend against children (Beech et al., 2015). Consequently, interventions have not been tailored to the offenders' criminogenic needs.



The Sex Offender Treatment Programme (SOTP) was implemented in 1991 by the Prison Service to assess and treat prison-based sexual offenders. In 2005, there were 26 prisons in England and Wales running the SOTP, treating around 1000 offenders per year. The most common SOTP, known as 'Core SOTP 2000', lasts on average 180 hours and works collaboratively with the offender using cognitive restructuring, positive reinforcement and modeling techniques to help offenders develop self-management skills to enable them to develop the motivation necessary to avoid re-offending. The Prison Service has further developed an 'Extended SOTP' aimed at those with extra needs, as well as a 'Healthy Sexual Functioning' programme which provides individual behavioural modification sessions targeting deviant sexual fantasies and arousal.

The current core SOTP has a strong focus on Relapse Prevention, with it accounting for over half of the 86 group sessions. Whereas SOTP has been demonstrated to be effective amongst the rapist population in helping the identification of risky situations, developing coping strategies and recognizing future risk, the evidence of its efficacy within the sexual murderers population is less robust (Clarke & Carter, 2000). Higgs et al. (2015) thus highlight the need for further theoretical advancement to inform evidence-based practice.

The use of a dimensional approach would enable researchers and clinicians to consider the behavioural information from crime scene and evidential data from court and the investigation, thus avoiding the need to rely on the offender's account, which is often distorted. If associations can be found between the behavioural data and specific clinical needs or risks, a much better formulation can be built of those needs and risks based on the evidence rather than subjective interpretations or offenders' accounts.

## 1.6 Key definitions

Throughout the literature, the terms “sexual homicide”, “sexual murder”, “lust murder” and “serial murder” are used interchangeably erroneously despite their differences in definition and meaning. Sexual murder has been defined as resulting from “*one person killing another in the context of power, control, sexuality, and aggressive brutality*” (Burgess et al., 1986, p. 252). Sexual murder, or sexual homicide, is a broad term and general concept referring to a cluster of specific activities within which exist a level of variation and idiosyncrasies, composed of a link between aggression and sexuality (Kerr et al., 2013). Lust murder has been defined by Purcell and Arrigo (2006) as the “*acting out of injurious behaviours by brutally and sadistically assailing the victim*” (p.1). According to these authors, lust murder can be referred to as erotophonophilia, and is an extreme form of paraphilic behaviour through which the offender is able to achieve sexual satisfaction. Although these authors argue that such offenders are likely to repeat their offence, thus resulting in a serial nature of offending, this does not appear to have been empirically evidenced. Although it adds to the definition, classifying erotophonophilia as a sexual paraphilia does not explain it, thus creating further confusion to the distinction between assault type and motivation. Finally, serial sexual murder has been defined as “*three or more separate events with an emotional cooling-off period between homicides. This type of killer usually premeditates his crimes, often fantasizing and planning the murder in every aspect*” (Ressler et al., 1986, p. 139). Throughout this systematic review, there will be no differentiation between the four terms. Given the broad nature of the term “sexual murder/homicide”, this term will thus be used uniformly, rather than the terms lust murder or serial murder.

## 1.7 Structure and aims of the thesis

As highlighted above, the study of sexual homicide has been of interest to psychologists and psychiatrists for over a century without any clear consensus on its causes. As a result of the diversity of the perpetrators and behaviours, the available research has not eluded a coherent explanation for sexual murder. It therefore currently remains problematic for professionals to accurately assess and treat offenders convicted of such crimes. Consequently, this thesis aims to explore the behavioural components of sexual homicide offenders dimensionally to allow for maximum variation and quantification, and to examine the characteristics of sexual murderers with the aim to discriminate both between sexual murderers and rapists and within sexual murderers. It is therefore aimed that an explanatory framework for the understanding of sexual homicide can be developed, with a view to inform risk and ultimately treatment.

A fuller and more comprehensive understanding of the theories and models is a pre-requisite to the prediction, prevention and treatment of sexual offending. Theories enable hypotheses to be developed and tested (Ward & Hudson 2001; Ward, Polaschek & Beech, 2006), but often the specific theories offered only partially explain the observed phenomena. Scientific acceptance of existing theory has to broaden the scope of available theories as well as incorporate differing approaches to the study of the phenomenon. **Chapter 1** provides a general overview of the understanding of sexual murder thus far throughout the literature.

Despite their clear distinction within the literature, sexual homicide and rape encompass common features, both in terms of behaviours and underlying motivations. Within clinical practice, sexual murderers have generally been included in sex

offender treatment programmes alongside sexual offenders who have not killed their victims (Oliver et al., 2007). Empirical studies have suggested that the literature on sexual offenders may enable a better understanding of those who sexually murder (Salfati & Taylor, 2006). **Chapter 2** is a systematic review which explores the differences between sexual murderers and rapists with the objective to determine whether they differ in terms of personal characteristics, and to determine whether sexual murderers are in need of specialist treatment when compared to rapists.

Sexual sadism has been widely associated with sexual murder throughout the literature (Myers et al., 2008). Sexual sadism as a diagnosis however has demonstrated poor reliability (Marshall & Kennedy, 2003; Nitschke, Osterheider, & Mokros, 2009), and definitional issues have stemmed from the intricacies in identifying the motivation behind sexual sadism, for example when leading to sexual murder. A critique of the Severe Sexual Sadism Scale (Nitschke et al., 2009) is provided in **Chapter Three** in an attempt to evaluate the assessment of sexual sadism, thus contributing to our understanding of sexual murder. Through appraising the psychometric characteristics of the scale, this critique endeavors to demonstrate that sexual sadism can and should be explored in a dimensional rather than categorical manner, in order to enable a continuum rather than categorical perspective on sexual offending.

Combining empirical research, theoretical constructs and hypothetically important variables has been identified as the most comprehensive approach to the study of sexual murder (Knight & Prentky, 1990). Using such dimensional models enables the exploration of interactions between predictor variables. Whereas previous research as tended to focus on identifying types of sexual offenders, dimensions are

more flexible and allow for continua of intensity. As such, it is proposed that research should focus on describing diversity rather than trying to simplify sexual offenders into simple sets of features or types. **Chapter Four** consists of an empirical research study exploring the development of a dimensional model that allows for discrimination within sexual murderers, as well as between sexual murderers and other types of sexual offenders, such as rapists. This dimensional model is aimed at understanding sexual offences along multiple continua (rather than categories or typologies) in order to develop an explanatory framework for the understanding of sexual homicide. Such continua could be further extended in subsequent work to incorporate other elements of motivation and behaviour, as well as more refined scales using data which might be available.

This thesis will have endeavored to broaden the theoretical approach to investigating sexual murder, with the aim to develop an understanding of sexual offences along a continuum, and to develop an overarching explanatory framework for the understanding of sexual homicide. **Chapter Five** thus consists of a discussion bringing together the conclusions from the systematic literature review, critique of the Severe Sexual Sadism Scale and empirical research study, and considers implications of these on applied practice. Finally, the discussion additionally considers further research.

## **CHAPTER 2**

### **SYSTEMATIC LITERATURE REVIEW**

## **ABSTRACT**

The aims of this review were to systematically explore the similarities and differences between sexual murderers and rapists to determine whether they differ in terms of psychological characteristics such as behaviour, motivation and background characteristics. Previous systematic literature reviews focused on identifying characteristics of sexual murderers and differentiating within them. Typologies have categorized offenders based on clinical or crime characteristics, and have uncovered common themes such as sex, anger and power. It however remains unclear whether they differ in terms of characteristics and dynamic factors.

This review first explored existing typologies of sexual murderers and rapists to identify any common themes, and subsequently investigated systematically the characteristics of sexual murderers relative to rapists. Three databases were searched and hand-searches conducted on reference lists. 445 hits were obtained and sifted based on title and abstract. 13 studies were reviewed against inclusion and exclusion criteria. 8 remaining studies were assessed for quality and included in this review.

A lack of consensus was found across the literature on characteristics potentially discriminating between sexual murderers and rapists. High levels of abuse was found in both groups, with sexual murderers at times found to experience significantly more than rapists. Personality disorders were found to be common amongst both groups of offenders, with more Antisocial Personality Disorder and psychopathy in sexual murderers. Paraphilias were present in both sets of offenders, with more sexual sadism, pornography use, tranvestism and voyeurism found in sexual murderers. Motive and fantasies were not commonly commented upon thus rendering data synthesis difficult.

This systematic review has been able to extract a number of relevant findings to better understand the similarities and differences between sexual murderers and rapists known to date. Discriminating between these groups may enable better identification of criminogenic needs, thus informing the assessment, formulation and treatment of such offenders. Future research should focus on strengthening the findings of this review, as well as exploring the themes highlighted in the synthesis of typologies.



## **2. SYSTEMATIC LITERATURE REVIEW**

### **2.1 Introduction: Aims and objectives of the systematic review**

Despite their clear distinction within the literature, sexual murder and rape encompass common features. Sexual murderers and rapists utilize violence to coerce their victim into a sexual act, driven by a number of similar motives. Consequently, the literature on sexual offenders generally may enable a better understanding of those who sexually murder. Previous systematic literature reviews have focused on identifying the main characteristics of sexual murderers (Carter & Hollin, 2010; James & Proulx, 2014) and differentiating within sexual murderers (James & Proulx, 2014). In addition, research has been conducted to identify the role of deviant sexual fantasy in the etiopathogenesis of sexual murder (Maniglio, 2010). Despite a number of studies exploring and indicating crucial differences between sexual murderers and rapists, the literature on the topic of sexual murder and associated criminogenic and treatment needs remains scarce (Kerr, 2014). As identified by Oliver et al. (2007), it remains unclear whether sexual murderers and rapists differ in terms of characteristics, attitudes and beliefs.

Although there has been a lot of research interest and discussion on the topic of sexual murder, there is a lack of empirical studies partly as a result of the rarity of the behaviour. To date, the literature exploring characteristics of sexual murderers has not compared them to rapists systematically. The review therefore questioned whether differences between sexual murderers and rapists are currently understood, well researched and evidence-based. The aims of this review are two-fold:

1. Part 1 aims to explore existing typologies of sexual murderers and rapists to identify any common themes.

2. Part 2 aims to determine whether sexual murderers differ from rapists in terms of psychological characteristics such as behaviour, motivation and background characteristics; and to determine whether sexual murderers differ qualitatively or quantitatively from rapists.

## **2.2 Classification: Typologies and taxonomies**

For decades researchers have attempted to classify sexual offenders using primarily observational studies (e.g., Baltieri & Guerra de Andrade, 2007). These have furthermore focused predominantly on specific features of offenders, such as psychopathy or sadism (e.g. Sewall et al., 2013). These attempts have been varied in nature, from clinically-derived observations to empirically grounded endeavors. Typologies, namely descriptive organized grouping schemes that provide a framework within which to analyse offending behaviour (Robertiello & Terry, 2007), represent one such attempt to classify offenders in order to inform clinical judgment (Knight & Prentky, 1990). A number of taxonomies and typologies have attempted to discriminate both rapists (Groth et al., 1977; Knight & Prentky, 1990) and sexual murderers (Ressler et al., 1988; Holmes & Holmes, 1998), ranging from early univariate approaches to later more complex multivariate models exploring the dimensions encompassing interactions between predictor variables (e.g. Groth et al., 1977; Knight & Prentky, 1990). One such example is Stefanska et al.'s (2015) deviancy, grievance and sexually driven pathways to non-serial sexual killers.

The typological and profiling literature has increased greatly in quantity and sophistication since the 1970s (Dowden, Bennell, & Bloomfield, 2007), however a number of early typologies can be identified as the keystones of offender classification and subsequent offender profiling (e.g. Guttmacher & Weihofen, 1952;

Ressler et al., 1986). The basic premise of a typology is the assignment of a crime to a category of offenders exhibiting a number of clinical characteristics. This group of offenders will, by definition, share similar crime-related variables, characteristics, or behaviours (Sarangi & Youngs, 2006). Two categories of typologies can be observed in the literature: those focusing on internal motives and characteristics of the offenders, and those focusing on external observable variables, such as crime scene and behavioural analysis for the purpose of investigation, with the latter generally belonging to the profiling literature.

### 2.2.1 Rapist typologies:

Early attempts at developing rapist typologies have to be considered within their historical context. For example, Freud identified two uncontrollable drives, Eros (amorous) and Thanatos (destructive), as potential instinctual mechanisms responsive for both sexual and aggressive behaviour (Schneider, 1986). Consequently, Freud suggests that rape can be thought of as being grounded in basic human instincts in which a fusion occurs between the two drives. An example of such an early typology is the work of Guttmacher and Weihofen (1952), who subdivided rapists three-ways: “true sexual offenders” were identified as driven by their uncontrollable sexual impulses. Comparatively, “sadistic” offenders were described as hostile and aggressive to women, and “aggressive” offenders as displaying more generalized criminal tendencies. A contextually similar classification was put forward by Kopp (1962), who sub-divided rapists according to their ego tendencies. Whereas ego-syntonic rapists were felt to display remorse for their offences, ego-dystonic rapists were described as psychopathic offenders with a lack of remorse and disregard for the welfare of the victim.

A further typology proposed by Gebhard, Gagnon, Pomeroy & Christenson (1965) offered seven sub-types of rapists: 1) assaultive, 2) amoral, 3) double-standard, 4) explosive, 5) drunken, 6) mentally retarded or psychotic and 7) miscellaneous. The assaultive and amoral rapists can be compared to Guttmacher and Weihofen's (1952) "sadistic" offenders and Kopp's ego-dystonic offender. Furthermore, the explosive offender may be compared to Guttmacher and Weihofen's "aggressive" offender. In addition to these, the double-standard rapist classifies victims into women who are good and deserve respect, and those who are bad and become victimized (Proulx, Beaugard, Lussier & Leclerc, 2014). Further types of drunken and mentally retarded or psychotic are not described, however as discussed in Bishopp (2003), these may represent dynamic contextual variables which are not mutually exclusive and not specific to any offender sub-type.

Groth et al. (1977) proposed a pivotal early classification of rapists. Through conducting diagnostic interviews with both rapists and victims, Groth and colleagues moved away from the function of rape as purely sexually motivated, and instead proposed power and anger to be driving the act of rape. They classified rapists into four sub-types dichotomously split through the functions of either power or anger, namely "power dominance", "power reassurance", "anger excitation" and "anger retaliation". These subtypes were further examined by Keppel and Walter (1999) who explored their frequency amongst the murderer population. Groth and colleagues identified rape as a pseudo sexual attempt to demonstrate power or anger (Bishopp, 2003). Rapists driven by anger were found to use excessive force and violence, and use sex as a weapon as opposed to an object of gratification (Vettor, 2011). On the contrary, rapists driven by power used only adequate force to control their victim, and instead wished to sexually possess their victims (Vettor, 2011). Whereas power and

anger are a useful new addition to the various rapist typologies, these constructs are not mutually exclusive and thus further point to the complex nature of typological approaches.

Rada's (1978) proposed typology in some ways overlaps with Groth et al. (1977)'s rapist classification, although it has a strong psychiatric focus assigning types to offenders' mental disorders. Five sub-types of rapists are suggested: sociopathic, masculine identity conflict, situational stress, sadistic and psychotic. Whilst helpful and clearly partly based on earlier work, Rada's rapist types are not mutually exclusive and thus not truly a classification. Furthermore, motivation for offending and diagnostic features are not described as separate aspects of the offence.

Finally, a more recent rapist typology and a further development of the Groth typology – and regularly revised in the Massachusetts Treatment Centre (MTC – R1, R2 and R3) - was offered by Knight and Prentky (1985; 1986; 1988; 1991; 2001) in which rapists were split dichotomously based on the offender's motivation, namely instrumental or expressive aggression. These were further split into either high or low social competence. Those classified as “compensatory” and “exploitative” demonstrated a level of instrumental aggression, namely enough violence to attain victim compliance. In contrast, “displaced anger” and “sadistic” rapists displayed expressive aggression in which they evidently exceeded the force necessary to ensure compliance (Knight & Prentky, 1990). Knight and Prentky (1990) further suggested four possible primary motivations for rape: opportunity, pervasive anger, sexual gratification and vindictiveness. As indicated in their study, offenders may not fit neatly into a category, thus rendering the types non-mutually exclusive.

### 2.2.2 Sexual murderers typologies:

Although there exists a number of early attempts at classifying sexual murderers (e.g. Brittain, 1970; Krafft-Ebing, 1886), these principally discriminated sadistic offenders (today considered a sub-type) from other types of sexual homicides. An attempt to organize sexual murderers according to psychological abnormalities was conducted by Revitch and Schlesinger (1981) who identified nine features for what they termed “compulsive murder”: history/fantasy of mistreating women, breaking and entering alone under bizarre circumstances, fetishism, hatred for women, dislike for cats or other animals, violent primitive fantasy life, confusion of sexual identity, sexual inhibitions and preoccupation, and isolation or poor reality testing (Meloy, 2000). Revitch and Schlesinger (1989) subsequently proposed two types of sexual homicides: compulsive and catathymic. Whereas the compulsive murderer is driven by a compulsion to kill the victim, the catathymic offender’s murder occurs as a result of a buildup of underlying sexual conflict. The state of tension is thus relieved through the act of killing.

A subsequent attempt to organize sexual murderers developed by Ressler et al. (1986) argues that some previously established typologies based on motives of the offender have been criticized for their lack of theoretical underpinnings and vague or ambiguous interpretive levels. Instead, they propose a typology based solely on measurable behavioural indicators, thus reportedly increasing reliability of interpretation. Rather than focusing on the victim’s potentially causal role (von Hentig, 1948; Wolfgang, 1958), FBI profilers identified that an emphasis on the offender’s thinking process may enable more in-depth understanding of the offender-victim interaction (Ressler et al., 1986). Consequently, Ressler and colleagues suggested that aspects of the offender’s personality are reflected in his offence, stating

that “...like a fingerprint, the crime scene can be used to aid in identifying the murderer” (p. 291). Ressler and colleagues divided sexual murderers into two categories: organized and disorganized offenders. Whereas organized offenders demonstrate planning, control through the lack of crime scene clues, and tend to have killed subsequent to a precipitating stressful event, disorganized offenders demonstrate less evidence of planning, tend to leave clues on the crime scene, and kill opportunistically (Canter & Wentink, 2004; Ressler et al., 1986). Although this typology is based on crime scene behaviour rather than motivation of the offender, Canter and colleagues argue that the model infers a motivational framework.

Holmes and Holmes (1998) developed a further typology using case material from 110 serial killers – not all of whom were sexual murderers - as well as interviews. They developed a five-fold model of serial killers, identifying the following categories: 1) the visionary killer, an individual who tends to be psychotic and usually kills as a result of command auditory hallucinations; 2) the mission killer, who kills in order to exterminate a particular type of victim due to deemed it undesirable; 3) the hedonistic-thrill killer, where the individual enjoys the act of killing and often uses torture; 4) the hedonistic-lust killer, who again enjoys the act of killing and gains sexual gratification from the act itself; and 5) the power/control oriented killer, who derives pleasure from being in control of the victim’s fate and whose motivation is driven by dominance over another. The above types are not mutually exclusive, however it is proposed that a dominant theme would emerge. Despite using different language but emerging from the Ressler et al. (1988) typology, the Holmes and Holmes (1998) typology used motive and victim characteristics as distinguishing criteria. It nonetheless makes predictions about the killer’s presentation and crime scene behaviour, for example describing the killer or

the crime scene as organized or disorganized (Canter & Wentink, 2004).

Consequently, Canter, Alison, Alison and Wentink (2004) argue that the Holmes & Holmes typology can be seen as a continuum of the organized (e.g. power/control killer) disorganized (e.g. visionary killer) typology.

Clarke and Carter (2000) developed a clinical typology based on a sample of 32 male sexual murderers in a specialized treatment center in Brixton prison. This typology identified four categories of sexual murderers. Firstly, the sexually motivated offender's primary aim is to kill, and it is the method of killing itself that is sexually stimulating, often incorporating detailed masturbatory fantasies. As such, the victim is often unknown to the offender, and the sexual offending is secondary. Secondly, the sexually triggered-aggressive control offender is primarily motivated by the sexual offense itself, often including sadistic features. The killing remains intentional, although may additionally be instrumental. Similarly to the sexually motivated offender, the victim is likely unknown. Thirdly, the sexually triggered-aggressive discontrol offender's homicide is triggered by the victim's verbal or behavioural conduct, and as such is unplanned. The act itself is of extreme violence, and this violence may contain sexual characteristics. Finally, the sexually triggered-neuropsychological dysfunction offender's motivation is unclear, although evidence suggests high sexual arousal to aggression. These features are thought to affect the application of treatment intervention, and combine previously identified typological variables. Chan (2015) identified that this typology is the first of its type to identify distinctive treatment implications for each category of offenders, rather than focusing solely on investigative purposes.

Beauregard and Proulx (2002) explored offence pathways of 36 non-serial sexual murderers of females through identifying possible relationships between



factors occurring prior, during and after the crime, as well as offender and victim characteristics. Despite variability and potential heterogeneity of the sample, Beauregard and Proulx identified two offending pathways: sadistic and anger. Whereas sadistic offenders' offences were premeditated, bodies were hidden, physical restraints were used, and humiliation and mutilation were apparent, anger-driven offences were unplanned, bodies were left at the crime scene, and they were less likely to include humiliation or mutilation.

Beech, Fisher and Ward (2005) explored the implicit theories (IT) of 28 sexual murderers through exploring the offenders' experience of their offence. Five implicit theories previously identified in rapists were examined: women are unknowable, women as sex objects, male sex drive is uncontrollable, entitlement and dangerous world. Three offending pathways were identified. The first consisted of a co-occurrence of 'dangerous world' and 'male sex drive is uncontrollable' IT, in which offenders appeared motivated by sadistic fantasies and a need for control and motivation. The second group of offenders appeared motivated by grievance and presented with anger towards women. These reported IT of 'dangerous world', without the presence of 'male sex drive is uncontrollable'. The final group, consisting of 'male sex drive is uncontrollable' IT without 'dangerous world' IT, presented as sexually-driven, and death occurred as a result of silencing the victim or avoiding detection.

Stefanska et al. (2015) explored offence pathways of 129 non-serial sexual murderers through identifying cognitive problems, sexual and behavioural interests, modus operandi and crime scene characteristics. Three distinct pathways were identified: deviancy, grievance and sexually driven. Deviance-driven offenders were found to have more intimacy difficulties and emotional loneliness. Their assaults

tended to be more immediate and premeditated, and there was a higher prevalence of post-mortem interference and anal sex. On the contrary, offenders in the grievance-driven group were socially adequate but hypersexual, and the offence tended not to be premeditated due to an initial consensual contact. The presence of overkill was higher than in other groups, and there was evidence of post-mortem mutilation but no sexual interference. Finally, the sexually-driven offenders tended to have previous sexual offences, presented as hypersexual (mostly engaging in vaginal sex) and identified sex as their primary motivation. They tended to premeditate the offence and to kill the victim to silence her.

Whilst the above pathways are described by single terms, they do not always seem to fit the label. Their definition by singular feature (e.g. grievance) does not appear to account for the range of variables that characterize the types. Due to each pathway having a degree of overlap, it appears difficult to describe them as distinct pathways. For example, both the grievance and deviance pathways include inadequacy. Similarly, both the grievance and the deviance groups appear to show sadism. Finally, the sexual type is defined solely by sexual interest, and does not appear to encompass additional features. Across authors there is no consensus on the number of types, and the tendency is to describe types through singular features from the multivariate models, ignoring the prevalence of the other features across the various types.

### **2.3 Typologies: recurring themes**

*“Critical dimensions are psychologically relevant, but it is apparent that there is a lot of conceptual difficulty in making distinctions between people using diagnostic interpretations of those constructs” (Bishopp, 2003, p. 84)*

Although sophisticated classification systems have been identified for sexual offences, sexual murder is often described in dichotomous terms despite its levels of variation and idiosyncrasies. For example, many of these classifications focus on small samples of prisoners, or mentally disordered offenders who also appear to be described through alternate psychological characteristics. While the violent and sexual offenders may be prevalent in prisons, psychopathic, psychotic and sadistic offenders are perhaps more likely to be found in secure psychiatric facilities. Although it is useful to review typologies at the core of the empirical understanding of rape and sexual murder and to explore them in their own right, it is beneficial to reflect on the themes underlying the typologies of rape and sexual murder. As suggested by Bishopp (2003), typologies can be organized into various thematic categories. Core themes identified throughout the literature have included sex, aggression/anger/violence, power/control/sadism, and emotional/mental state within the offending context. Table 1 identifies the main rapist and sexual murder typologies, and allocates each identified type to one or more of the aforementioned themes:

Table 1:  
Thematic allocation of typologies

	Typology	Sex	Aggression/ Anger/ Violence	Power/ Control/ Sadism	Emotional or mental state
Rapists	Gutmacher & Weihofen (1952)	True sex offender <i>Sadistic rapist</i>	Aggressive	Sadistic rapist	
	Kopp (1962) Gebhard et al. (1965)	Explosive		Egodystonic Assaultive Amoral	Egosyntonic Drunken, double standard, mentally retarded, psychotic, miscellaneous
	Groth et al. (1977)	Power reassurance	Anger retaliatory	Power assertive Anger excitation	
	Rada (1978)		Masculine identity conflict	Sadistic	Psychotic Sociopathic Situational stress
	Prentky & Knight (1985; 1986; 1988; 1991; 2001)	Opportunistic offender Non-sadistic offender	Pervasively angry offender	Vindictive offender Sadistic offender	
	Ressler, et al. (1986)* Revitch & Schlesinger (1989)	N/A Catathymic <i>Compulsive</i>	N/A <i>Compulsive</i>	N/A	N/A
Sexual murderers	Holmes & Holmes (1998)	<i>Hedonistic-lust killer</i>	Mission killer	Hedonistic-thrill killer Power-control oriented killer <i>Hedonistic-lust killer</i>	Visionary killer
	Clarke & Carter (2000)	<i>Sexually-triggered aggressive control</i>	Sexually motivated Sexually triggered aggressive discontrol	<i>Sexually-triggered aggressive control</i>	Sexually triggered neuropsychological dysfunction
	Beauregard & Proulx (2002)		Anger	Sadistic	
	Beech et al. (2005)	Group 3: prospect of having sex	Group 2: grievance-driven	Group 1: carry out fantasies	
Stefanska et al. (2015)	Sexually-driven	Grievance-driven	<i>Deviance-driven</i>	<i>Deviance driven</i>	

\*Whilst Ressler et al. (1986) refer to their typologies as organized/disorganized, the wide range of features renders its allocation to discrete types impossible. Rather than describing the offender, its focus is on describing the crime scene. Although useful within the offending field, this rudimentary dichotomy approach is neither clinical nor theoretical. Consequently, it is difficult to consider how any particular offenders would fit under either category.

### 2.3.1 Theme 1: Sex

Sex as a core concept and motive for sexual offending has been identified by most, if not implied by all, taxonomies and typologies of both rape and sexual murder. As stated by Bishopp (2003), “*sex may be the goal, and aggression the means*” (p. 88). The concept of sex within sexual aggression is a complex and multi-faceted one. Arousal may reflect both sexual and aggressive aims, and it may be difficult to distinguish between sex and intimacy (Bishopp, 2003). As a result, it is difficult to identify only one motivation for an offence. For example, an offender could be sadistic, sexually motivated and angry, thus defining offender types through singular motives does not reflect the observed reality. Early typologies such as Guttmacher and Weihofen (1952), Gebhard et al. (1965) and Revitch and Schlesinger (1989) identified a clearly defined offender driven by uncontrollable sexual impulses (true sex offender, aggressive offender, catathymic offender). As early as Guttmacher and Weihofen (1952) however, a mixture of aggression and sex was identified. “*Another type that is sexual in origin...is the sadistic rapist. [...] this aggressive element becomes abnormally exaggerated and manifests itself as a sadistic sexual attack*” (p. 159). It is however of interest that sadism is not defined by aggression but rather by power. This complexity is reflected in subsequent typologies, with a more complex picture in which sexual motivation is intermingled with power or anger. For example, a mixture of sex and power can be seen in Keppel and Walter’s (1999) power reassurance rapist, developed from Groth et al.’s (1977) initial power theme. Furthermore, a mixture of anger and sex can be seen in Revitch and Schlesinger’s (1989) compulsive offender, Knight and Prentky’s (1990) opportunistic offenders, and Holmes and Holmes’ (1998) hedonistic-lust killer, who are driven by seeking sexual gratification but in which a fusion between sex and aggression is described.

Rather than distinct types therefore, it appears sex may represent a primary motivation which should be considered along a dimension of sexual offending rather than as a distinct defining feature.

### 2.3.2 Theme 2: Aggression, anger and violence

Sexual murder may be seen as being at the extreme violent end of the sexual offending continuum. Consequently, anger has always been seen as a key concept in sexual aggression (Groth et al., 1977; Myers, Husted, Safarik, O'Toole, 2006).

Similarly to sex as a motivation for sexual offending, the complexity of anger as a concept hinders its ability to solely provide a causal explanation for rape or sexual murder. Most typologies identify anger as a key factor in an attempt to explain sexual offending. This may be anger towards a particular victim group (e.g. Revitch & Schlesinger's compulsive gynocide and Holmes & Holmes' mission killer), general criminal tendencies that do not limit themselves to sexual offending (e.g. Guttmacher and Weihofen's aggressive offender), use of sexual violence as a means to release feelings of anger (e.g. Groth's anger retaliatory offender, Revitch and Schlesinger's compulsive offender, Prentky and Knight's pervasively angry offender, Beauregard and Proulx's anger rapist) or masculine identity conflict (Rada, 1978). As a result of the overlap between the concepts of anger and sex in part demonstrated above, Bishopp (2003) argues that sexual assaults should be explored dimensionally along multiple continua of differing degrees of aggression and sexual variation.

### 2.3.3 Theme 3: Power, control and sadism

Power, control and sadism tend to be in some ways identified in all typological approaches. As some form of control or dominance is required to effect any sexual assault, the sometimes implicit nature of power, control and sadism

presents with some conceptual difficulties (Bishopp, 2003). As a result of the complexity of these themes, typologies tend to be based on an interpretation of the offender's behaviours. For example, one may examine the amount of force used to control the victim (Keppel & Walter, 1999), or the use of physical restraints and mutilation (Beauregard & Proulx, 2002). Such interpretations can however be confounded/inflated by small sample sizes – for example only 6 participants (restraint, 38%) and 7 participants (mutilated, 44.4%) in Beauregard and Proulx's profiles of non-serial sexual murderers. Early typologies such as Guttmacher and Weihofen (1952), Kopp (1962) and Gebhard et al. (1965) identified sadistic offenders as those aggressive towards women and indicating a lack of remorse. Although these point towards the later identified sadistic offender, these struggle to differentiate between the earlier theme of aggression, and the presence of power, control or sadism as a motivator. In comparison to earlier typologies, later typologies tend to emphasize the overlap between anger or aggression and power, control and sadism more directly. Several authors report that types are not mutually exclusive (e.g. Groth et al., 1977; Prentky & Knight, 1990) thus indicating the complex nature of typological approaches. More generally however, the above typologies tend to recognize the importance of the use of force as a reflection of a need to control, and at times the presence of victim mutilation. Although some may argue that power is a principal motivator for sadistic aggression (Bishopp, 2003), power, control and dominance are not alone sufficient to explain the full range of motivations for sexual offences.

#### 2.3.4 Theme 4: Emotional or mental state

Defining emotional or mental state appears an almost impossible task, due to the range of emotions experienced by human beings, and the complexity of one's

mental state. Bishopp (2003) states that motives are driven by internal rather than external processes. It is therefore crucial to explore one's internal state as this may provide insight into the offender's criminal motives. There appears to be a number of themes emanating from typologies identifying offenders' emotional or mental state. These include 1) substance misuse (drugs and alcohol) 2) dynamic contextual variables (life stresses) 3) mental illness 4) cognitive ability 5) cognitive distortions 6) intimacy and emotional loneliness. Early typologies such as Kopp (1962) and Gebhard et al. (1965) identified what appears to be a pre-cursor to the importance of offenders' cognitions. For example, the ego syntonic offender is said to display remorse. On the other hand, Gebhard and colleagues identified a number of dynamic contextual variables (e.g. drinking, cognitive ability, psychosis), similarly to Rada (1978) who points to the importance of situational stress. Emotional loneliness and intimacy difficulties are identified more recently (Stefanska et al., 2015) as a motivator for the deviance-driven offender.

#### **2.4 Typologies: challenges and pitfalls**

Typologies and taxonomies have been developed with the aim to improve our understanding of a range of sexual offences. The literature however identifies a number of difficulties inherent to typological approaches. Firstly, sex offenders have been shown to be a heterogeneous group demonstrating heterogeneous characteristics (Simons, 2015). Grouping sex offenders into distinct categories has proven difficult as a result, and appears at times reductive. Secondly, it has been demonstrated that definitions used for both sexual offenders and sexual murderers have been vague and thus inadequate. Together with high crossover rates, the accuracy and reliability of findings is therefore hindered.



Thirdly, as identified above, there is at times a significant overlap between types identified within typologies (Canter & Wentink, 2004; Knight & Prentky, 1990) despite typologies attempting to propose distinct type of offenders based on either motives or crime-scene behaviour. Although this difficulty has been acknowledged in Knight and Prentky's work, typologies remain inflexible. It is therefore logical that one would adopt a dimensional approach in order to embrace the heterogeneity, variability and complexity inherent to sexual offenders. Although in some ways novel, it is useful to think of this as similar to the work of Eysenck (1991) on describing personality dimensions that characterize individual differences. Finally, Camilleri and Quincy (2008) report that typologies have mostly failed to address treatment needs. It is however arguable that the identification of motivations is in and of itself a treatment need.

## **2.5 Sexual murder as a specialized rape**

*“If behaviour can be empirically seen to distinguish sexual homicide from rape offences, then it may be possible to offer a refined conceptualization of sexual violence in the form of a continuum”*  
(Salfati & Taylor, 2006, p. 112).

Sexual offenders have generally been compared based on crime committed, behaviour at the crime scene, or psychological characteristics. Despite their clear distinction within the literature, sexual murder and rape encompass common features. Sexual murderers and rapists utilize violence, on a spectrum from coercion to extreme direct violence, to force their victim into a sexual act, driven by a number of motives. Consequently, the literature on sexual offenders may enable a better understanding of those who sexually murder.

When compared to the literature on other sexual offenders such as rapists, the literature on sexual murderers remains scarce (Oliver et al., 2007). Despite this, sexual murderers have generally been included in sex offender treatment programmes alongside sexual offenders who have not killed their victims (Oliver et al., 2007). These treatments have emphasized key deficits such as social and personal inadequacy, cognitive distortions, deviant arousal, impulsivity, poor emotional regulation and substance misuse, yet none of these features are evident within any typologies. Studies investigating differences between sexual offenders and sexual murderers have however generally demonstrated quantitative rather than qualitative differences. For example, both rapists and sexual murderers have been found to experience anger, however it is the extent of their anger which appears to determine the fate of the victim. Similarly, as identified in the typological themes above, motivations in sexual murderers and rapists do not necessarily differ from each other and include sex, anger, and power. Furthermore, studies have indicated that sexual murderers have higher alcohol consumption. One may therefore hypothesize that sexual murderers may demonstrate higher levels of disinhibition resulting in a loss of control. Oliver et al. (2007) thus argue that sexual murderers may simply be rapists who kill their victims. Whilst this may be true for some of the offenders who pragmatically killed their victims, other types of offenders (e.g. sadistic offenders, those who strangled the victim) would seem qualitatively distinct.

## **2.6 Key definitions**

Throughout the literature, the terms ‘sexual homicide’, ‘sexual murder’, ‘lust murder’ and ‘serial murder’ are used interchangeably erroneously despite their differences in definition and meaning. Sexual murder has been defined as resulting from “*one person killing another in the context of power, control, sexuality, and*

*aggressive brutality*” (Burgess, Hartman, Ressler, Douglas & McCormack, 1988, p. 252). Sexual murder, or sexual homicide, is a broad term and general concept referring to a cluster of activities within which exist a level of variation and idiosyncrasies, composed of a link between aggression and sexuality (Kerr et al., 2013).

The term ‘lust murder’ originated from the German word ‘lustmord’ in an early account of sexual murder by Krafft-Ebing (1885). The term at the time referred to an offence in which brutality was observable in the form of a morbid fascination with bodily inner parts (Tatar, 1997). Purcell and Arrigo (2006) reported that lust murder is “*motivated by the need for ultimate sexual satisfaction, exemplified by the acts in which the offender engages, either pre- or postmortem. The sexualized persecution at the core of the assailant’s behaviour is principally inflicted as a means of sustaining arousal and attaining orgasm*” (p. 26). They argue that lust murder can be referred to as erotophonophilia, and is an extreme form of paraphilic behaviour through which the offender is able to achieve sexual satisfaction. Such offenders are likely to repeat their offence, thus resulting in a serial nature of offending.

Serial sexual murder has been defined as “*three or more separate events with an emotional cooling-off period between homicides. This type of killer usually premeditates his crimes, often fantasizing and planning the murder in every aspect*” (Ressler et al., 1988, p. 139). Serial murder as such is intrinsically different from sexual murder, for the simple fact that it implies a series. Kerr et al. (2013) argue that serial sexual murder is in fact a subset of sexual murder itself, within which the excitement is related to the act of killing itself, with power and control representing secondary motives. Throughout this systematic review, there will be no differentiation

between the four terms, and the term 'sexual murder' will be used uniformly, rather than sexual homicide, lust murder or serial murder.

## **2.7 Existing systematic literature reviews**

A scoping search was conducted on 05.12.15 to ascertain whether any systematic reviews explored the research topic. This search was conducted using the following bibliographic databases:

- Cochrane Database of Systematic Reviews (CDSR) 1960-2015
- The Centre for Reviews and Dissemination (DARE) 1960-2015
- The Campbell Collaboration 2003-2015
- PubMed Clinical Queries 2000-2015

No systematic reviews were found. A search was subsequently conducted on PsycInfo 1806-2015. Three existing systematic reviews were found, and are thus discussed below.

### **2.7.1 James & Proulx (2014)**

James and Proulx (2014) conducted a review comprised of 45 studies selected on the basis of being 1) empirical 2) published since 1985 3) containing a sample of at least 10 adult male sexual murderers 4) from psychiatric, psychological or police/correctional files. Their review concluded that serial sexual murderers and non-serial sexual murderers had distinct characteristics observable through the type of sexual crime committed. Serial sexual murderers were found to display more sexual problems, more paraphilias and more extreme sexual fantasies. James and Proulx suggest these may result from low self-esteem and distress, and may thus be an attempt at a coping strategy. They propose that serial sexual murderers share similar

profiles with sadistic sexual murderers. On the contrary, non-serial sexual murderers were found to display less sexual problems and to be defined by high antisociality, observable through aggressive and impulsive behaviour. James and Proulx propose that this may in part stem from a difficult family environment thus affecting the offender's affective life. In summary, whereas serial sexual murderers' criminogenic characteristics were found to revolve around sexuality and sadism, non-serial sexual murderers presented as polymorphic criminals in whom anger is prevalent. The findings of this review are consistent with the earlier classification of sexual murderers as either sadistic or angry (Beauregard & Proulx, 2002). Although this review provides an overview of the research on serial/non-serial sexual murder, the majority of its studies originated from the United States and Canada (25/45). Furthermore, although the study touches on motivation for sexual murder in relation to past literature, very little is discussed as to motivational factors and their impact on crime type.

### 2.7.2 Carter & Hollin (2010)

Carter and Hollin (2010) conducted a review comprised of 13 studies selected on the basis of 1) literature involving non-serial male sexual killers who perpetrate their crimes against adult females 2) studies that described the sexual murderers in terms of childhood, adulthood, victim, or crime scene information. Their review concluded that sexual murderers tend to be of white ethnic background, and aged in their twenties or thirties. They tend to have suffered physical abuse and social isolation, and some have additionally suffered sexual abuse. The sexual murderers additionally demonstrated behavioural problems (both at home and school), were overall poor achievers, and had disturbed relationships with their fathers. Finally,

sexual murderers tended not to be in a relationship at the time of the offence, had previous convictions, and had had some contact with psychiatric services prior to the offence. The review however concluded that sexual murderers are a heterogeneous group, and as such generalization of characteristics may be difficult. Although this review did not intend to identify sexual murderers as such, the authors suggest that the above characteristics may help at the assessment stage. Similarly to James and Proulx (2014), motivational factors were only minimally identified due to the paucity of research in this area. Carter and Hollin further identify that despite their criteria of adult female victims, some of the papers included in this review included child and male victims.

### 2.7.3 Maniglio (2010)

Although not directly addressing issues discussed in the review outlined below, the review by Maniglio (2010) adds to the formulation of sexual murder, and highlights the propensity of authors to at times focus on non-salient features of sexual murder. Maniglio (2010) conducted a review comprised of 7 studies selected on the basis of 1) having appeared in a peer-reviewed journal 2) having been published in full 3) being a research paper rather than a letter, book or chapter, or conference proceedings 4) had hypotheses about the development of sexual deviant fantasy in sexual murderers and/or the way in which deviant fantasies transform into reality promoting sexual murder. This review suggests that the presence of deviant sexual fantasies in sexual murderers can increase the likelihood of murder when combined with early trauma and social or sexual dysfunction. Maniglio proposed that these factors may lead sexual murderers to feel helpless, inadequate and lonely, thus leaving them with a wish to achieve control and dominate. Furthermore, the rehearsal

of fantasy may lead to the inclusion of sadistic contents in order to enhance the overall experience, thus leading to further conditioning. These factors are thus suggested to play a central role in the development and subsequent occurrence of sexual murder. There are a number of limitations identified by the authors in regards to the potential interpretation and generalizability of this review. The studies included in the review were identified as methodologically flawed, formed of small samples resulting in the possibility of established causality being questioned. Furthermore, the authors identify that despite a number of factors having been identified as in some way feeding into the development of sexual murderers, sexual murder as an entity would require a multifactorial and multifaceted model in order to encompass the complexity of the behaviours, motivations and cognitions causally linked to its occurrence.

## **2.8 Method**

### **2.8.1 Sources of literature and search strategy (see Appendix 1)**

The following electronic databases were searched on 05.12.15. Subsequently, reference lists of relevant publications were examined for additional relevant articles.

The search was completed using three bibliographic databases as shown below:

- Embase (1974-2015)
- PsycINFO (1967-2015) December Week 1
- Ovid MEDLINE(R) in-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) (1946-2015)

### **2.8.2 Search terms**

The search terms identified for this systematic review were chosen based partly

on the above named previous systematic reviews, adapted to capture search terms previously used. In addition, broad search terms were added in order to capture the currently scarce research focusing on sexual murderers.

{(Sex\* murder\*) OR (Sex\* homicide\*) OR (Lust murder\*) OR (Serial murder\*) OR (sex\* kill\*)}

AND

{(Other offend\*) OR (Sex\* offend\*) OR (Compar\*) OR (Control\*) OR (Contrast\*) OR (Differentiat\*) OR (Rape\*) OR (Rapist\*)}

### 2.8.3 Systematic Review Research Results

Table 2:

*Initial Papers Identified*

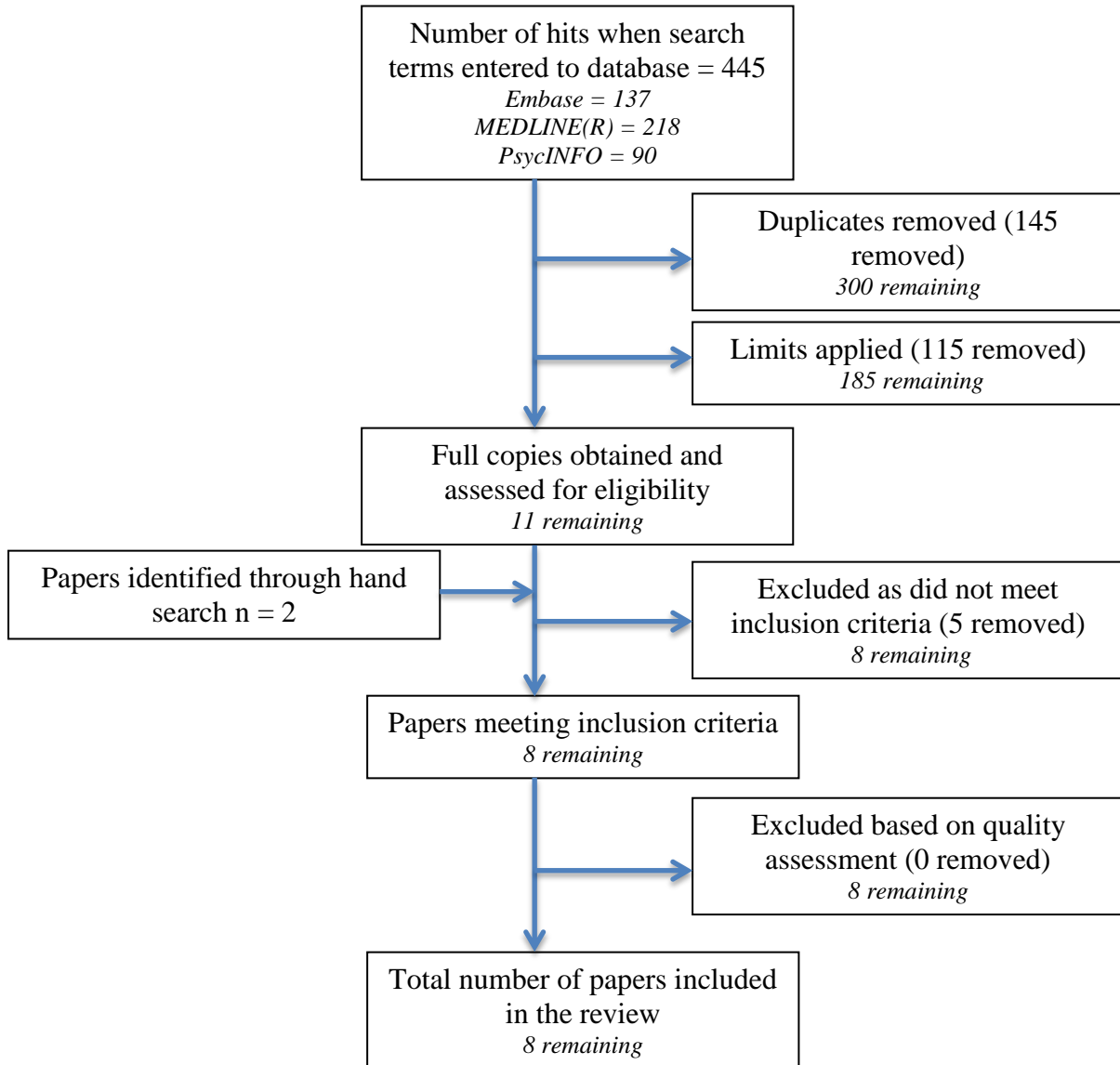
<i>Database</i>	<i>Initial Hits</i>
EMBASE 1974-2015	137
PsycINFO 1967-2015	218
MEDLINE(R) 1946-2015	90

The initial search identified 445 papers (Table 2). Duplicates were removed from this initial result, leaving 300 papers. Limits were placed (Journals, English language) leaving 185 papers. These papers were sifted based on title and abstract, and papers identified as irrelevant were removed ( $n = 174$  removed). The reference lists of the 11 papers left were read and 2 additional papers were identified through the hand search. The studies obtained were subsequently subjected to the inclusion/exclusion criteria, leaving a final 8 papers. These final papers were subjected to a quality assessment, and no studies were excluded based on quality,



leaving a total of 8 papers. A flowchart of the study selection process can be found on Figure 1.

Figure 1: Search Strategy



#### 2.8.4 Inclusion criteria and modified PICO

The remaining eight papers were assessed using an inclusion/exclusion form designed for the purpose of this review (see Appendix 2).

Table 3:  
*Inclusion and Exclusion Criteria*

	<b>Inclusion</b>	<b>Exclusion</b>
<b>Population</b>	Male sexual murderers who have committed at least on sexual murder offence.	Few than 10 individuals in sample Sample includes non-convicted individuals Samples of exclusively female offenders Samples of exclusively juvenile offenders Victims exclusively prostitutes Victims exclusively children
<b>Comparator</b>	Male sexual offenders who have committed at least one sexual offence (other than sexual murder).	Papers that do not distinguish between sexual murderers and other sexual offenders.
<b>Outcomes</b>	Comparison of psychological characteristics between sexual murderers and other sexual offenders.	Studies with a focus on geographical profiling, crime linkage, victim-offender relationship, reoffending, investigative strategies or medicine Absence of descriptive statistics.
<b>Study design</b>	Empirical studies relying on data from psychological, psychiatric or correctional files.	Questionable source of data: Opinion papers, editorials, non-English papers, case studies /series, review.

#### 2.8.5 Quality assessment

Following initial sifting based on abstract and title, as well as assessment using the inclusion and exclusion criteria detailed above (Table 3), each paper was individually assessed for quality. A quality assessment form was developed based on the Critical Appraisal Skills Programme (CASP - Centre for Evidence Based Medicine, CEBM, 2011) to critically assess the selected studies on a) aims b) bias c) study design d) outcomes e) validity f) results. The same checklist was applied to all

papers included in this review (Quality assessment form 1, Appendix 3). The quality assessment form was scored as follows:

Can't say/Unclear (the available evidence/information is insufficient)

0 points: No (the criteria has not been met)

1 point: Partial (the criteria has only been met partially)

2 points: Yes (the criteria is met fully)

Following completion of the quality assessment form, a total quality score was calculated out of 28 and expressed as a percentage. Quality score cut-offs were considered as follows:

> 70%: high quality

40-69%: moderate quality

> 40%: low quality

Score are shown in Table 5 including a detailed quality score for each category assessed. In addition, this table highlights the method of statistical analysis used in each individual paper. All of the studies assessed for quality were deemed appropriate to include in the review. All studies were reviewed by a second rater to assess for inter-rater reliability, and differences were discussed and a middle ground was agreed.

#### 2.8.6 Data extraction

A data extraction form (see Appendix 4) was devised for all studies that met the inclusion criteria and satisfied the quality assessment. This was recorded in a systematic and structured manner, and was completed by one reviewer for all studies included in the review. This included general information about the study (authors, title of study, source, country of origin, year of publication, quality score), re-verification of the study

eligibility (population, inclusion/exclusion criteria, participant characteristics), methodological factors (study aims, recruitment procedures, number of participants, participants description), outcome measure and statistical analysis (i.e. validity and reliability of assessments, statistics used, confounding variables), and results (i.e. results/outcomes, limitations).

Table 4  
Data Synthesis

	Author(s), Country, Year	Aims	Sample demographics	Outcome measures	Results	Strengths & Weaknesses
1	Oliver, Beech, Fisher, Beckett  UK  2007	This study aimed to compare sexual murderers and sexual offenders on family background, offence and victim characteristics, and personality factors.	Sample - all males: 112 rapists, 58 sexual murderers Rapists: Age at ax = 34.9 (SD = 8.4) Age at IO = 30.4 (SD = 9.5) Mean IQ = 93.6 (SD = 13.7) Previous violent offences = 55 (SD = 58) Relationship status at I.O: 39 married or one main partner (44%) Sexual murderers: Age at ax = 39.3 (SD = 10.5) Age at IO = 24.2 (SD = 7.1) Mean IQ = 102.2 (SD = 13.3) Previous violent offences = 22 (SD = 41) Relationship status at I.O: 18 married or one main partner (35%)	Shipley Institute of Living Scale (Shipley, 1940) - Intellectual assessment, verbal intelligence. Memories of childhood (Perris et al., 1980) - self-report measure of parental behaviour as child was growing up. Multiphasic Sex Inventory (Nichols & Molinder, 1984) - 300-item true false self-report assessing attitudes, sexual deviance, sex knowledge and belief, sexual dysfunction, motivation for treatment Multidimensional Assessment of Sex and Aggression (Knight, Prentky & Cerce, 1994) - self-report inventory testing for rapist typology Millon Clinical Multiaxial Inventory (Millon, 1994) - 175-item self-report questionnaire assessing personality characteristics and disorders Antisocial Personality Questionnaire (Blackburn & Fawcett, 1996) - 125-item self-report inventory measuring traits relevant to antisocial populations.	Offender characteristics: Sex murderers had higher IQ [ $t(df = 153) = 3.73, p < .001$ ], were significantly older [ $t(df = 96.20) = 2.74, p < .01$ ] at time of interview but significantly younger at time of I.O. [ $t(df = 122.2) = 4.22, p < .001$ ], were involved in less relationships with significantly less relationship at time of I.O. ( $\chi^2 = 13.69, p < .01$ ). 38% sex murderers had no relationship at time of I.O. against 44% rapists in a relationship. Forensic history 49% (n = 53) rapists and 34% (n = 19) sex murderers had committed previous sex offence but no significant difference at age of first sex offence or juvenile sex offending. Rapists had significantly more violent offences ( $\chi^2 = 4.3, p < .05$ ) Sexual history No significant difference on sexual interests, preoccupation or degree of interest with sexual matters/paraphilia.	Strengths: - Good sample size - Demonstrated validity of some of the measurements (e.g. demonstrated internal consistency, reported test-retest reliability) - Multivariate analysis: specificity  Weaknesses: - Use of self-report personality inventories: possible deceitfulness. - Selection bias: only offenders who agreed to volunteer (i.e. more pro-social) were included in the study. - Comparison group bigger than sex murder group
2	Milsom, Beech, Webster  UK  2003	This study aimed to explore emotional loneliness in sexual murderers through childhood, adolescence and adulthood, building on	Sample - all males: 19 sex murderers, 16 sex offenders. All >21 years old on life sentence. Sex offenders: Age at IO = 34.22 (SD = 6.34) Previous conviction for sex crime: 6/8 (75%) Previous conviction for nonsex crime: 3/8 (38%) Relationship at I.O.: 8/16 (50%)	Semi-structured interview: 9 main questions focusing on child, teenage and adult relationships. Grounded theory approach UCLA Loneliness Scale (Russel, Peplay, & Cutrona, 1980) - Measures ability to be appropriately intimate with adults - High internal consistency ( $\alpha = .91$ ) and high test-retest reliability ( $r = .70$ )	Qualitative data: Childhood: - Grievance: Female grievance + Male/Sibling grievance - Negative father image: - Emotionally unattached to parents: - Self as Victim-poor me Adolescence: - Peer group loneliness - Wanting to be loved/fit in or feelings of loneliness - Socially desirable objects or fantasy Adulthood: - Fear of social intimacy	Strengths: - Demonstrated validity of some of the measurements (e.g. demonstrated internal consistency)  Weaknesses: - Small sample - Non-significant p values not reported - Selection bias: only

	Author(s), Country, Year	Aims	Sample demographics	Outcome measures	Results	Strengths & Weaknesses
		Grubin's ideas.	Sex murderers: Age at IO = 37.06 ( <i>SD</i> = 10.49) Previous conviction for sex crime: 5/17 (29%) Previous conviction for nonsex crime: 8/17 (47%) Relationship at I.O.: 16/19 (84%)		- Self as victim  Quantitative data: Sex murderers significantly higher grievance against females in childhood ( $\chi^2 = 4.80, p < .05$ ); significantly higher peer group loneliness in adolescence ( $\chi^2 = 3.34, p = .05$ ); significantly higher self as victim in adulthood ( $\chi^2 = 9.28, p < .05$ ). UCLA no significant difference in emotional loneliness	offenders who agreed to volunteer (i.e. more pro-social) were included in the study. - No reported inter-rater reliability of qualitative data
3	Langevin, Wright, Marchese, Handy  Canada  1988	This study aimed to compare sexual murderers with nonsexual murderers and nonhomicidal sexually aggressive men on sexual preferences, substance abuse, history of violence, mental illness, and neuropsychological and endocrine abnormalities.	Sample - all males: 13 sex murderers, 13 nonsexual murderers and 13 non-homicidal sexual offenders.  Sex murderers mean age 32 ( <i>SD</i> = 8), mean education 11 ( <i>SD</i> = 3), 54% single, 8% married  Nonhomicidal sex offenders Mean age 28 ( <i>SD</i> = 8), mean education 10 ( <i>SD</i> = 2), 75% single, 17% married	Sexual preferences: - Standard phallometric test (Freund et al., 1972) - Audio test of sadism (Freund et al., 1972) - Penile volume: Used using procedure from Langevin et al. (1985) - Clarke Sex History Questionnaire - Gender identity scale (Freund et al., 1977) - Clinical interview to obtain personal and sexual history details, history of drinking Substance misuse: - Michigan Alcoholism Screening Test (Selzer, 1971) - Clarke Drug Use Survey Blood tests - Sex hormones, liver enzymes and alkaline phosphatase Mental Illness - Psychiatric diagnosis - MMPI and MCMI (personality tests) History of violence - Clarke violence scale (Langevin, Bain et al., 1985) - Clarke parent-child relations questionnaire (Paitich & Langevin, 1976) Neuropsychological impairment - CT scan - Halstead-Reitan Neuropsychological Test Battery (Golden et al., 1981) Endocrine studies - Clarke medical history (Langevin et al., 1985)	*Results reported only for sexual murderers vs. sexual aggressives (not nonsex murderers) Offender characteristics: No stat diff on age, occupation, marital status. Offence: Sex murder killed sig. more friends (15 vs. 0). No sig. diff of number of victims. >1/2 killers used excessive force to kill. Sex murder and sex aggressives motivated by sexual release but 2/3 sex murderers showed fusion of anger & sex. 4/5 sex aggressives only sex release. 69% sex murderers angry vs. 25% sex aggressives. Sex behaviour: 40%SM and 10% sex aggressives had sexual dysfunction. Only 2SM and 1 sex aggressive reported sexual abuse as child. Sig diff on transvestism (1/2 SM and 0 sex aggressives) ( $\chi^2 = 12.53, df=2, p<.01$ ). 6/8 SM sadists vs. 0 sex aggressives ( $\chi^2=17.18, df=2, p<.01$ ). Substance use: No sig. diff on drug/alcohol use but all groups heavy drinkers and 1/2 used street drugs. Sex aggressives used sig. more cocaine ( $p=0.0050$ ). 1/2 drinking or drugs at time of IO. Mental illness & Personality: 69%SM sadists vs. none in sex aggressives 58% SM vs. 11% sex aggressives diagnosed with ASPD. No sig. diff on psychosis. 38%SM vs. 11%sex aggressives suicidal at some time. No sig diff. on MMPI or MCMI results. Forensic history: No sig diff. on violence proneness or childhood violence indicators. Relationship to parents: No sig diff on parent alcoholism, mental illness, criminality. Intelligence & Brain pathology:	Strengths: - Variety of measures used  Weaknesses: - Small sample - Tests not all administered to all participants i.e. varying sample sizes - No reported validity of measures used - Use of self-report: demonstrated deceitfulness.

	Author(s), Country, Year	Aims	Sample demographics	Outcome measures	Results	Strengths & Weaknesses
4	Grubin UK 1994	This study aimed to better understand sexual murder by comparing sexual murderers to rapists using Britain's description of the 'sadistic murderer'.	<p>Sample: all males - 21 sex murderers, 121 rapists (incest offenders excluded from study) from six English prisons</p> <p>Sex offenders: Age at IO = 25.9 (<i>SD</i> = 6.9) Previous conviction for sex crime: 9/121 (7%) No sex partner in year of I.O. = 18/121 (15%)</p> <p>Sex murderers: Age at IO = 30.0 (<i>SD</i> = 8.7) Previous conviction for sex crime: 6/21 (29%) No sex partner in year of I.O. = 8/21 (38%)</p>	<p>90 minutes semi-structured interview</p> <p>Questionnaires - Eysenck I-7 (Eysenck et al., 1985): measure of impulsivity - Schonell reading test (Schonell &amp; Schonell, 1965): measure of educational attainment</p>	<p>No sig. diff on IQ.</p> <p>Demographics: Sex murderers significantly older (<math>t = 2.05, df = .140, p &lt; .01</math>). Mean intelligence similar for both groups.</p> <p>Social isolation &amp; emotions Sex murderers features suggestive of isolation: 86% vs. 45% rapists (<math>\chi^2 = 12.09, df = 1, p &lt; .001</math>). No significant difference on impulsivity but sex murderers bottle up anger significantly more (<math>\chi^2 = 4.26, df = 1, p &lt; .05</math>).</p> <p>Sexual behaviours No significant differences on aggressive pastimes, paraphilic behaviour, sexual dysfunction, offending. But murderers had significantly more convictions for rape (<math>\chi^2 = 8.46, df = 1, p &lt; .01</math>). Prostitutes &amp; pornography more frequently used in sex murderers but not significant.</p> <p>Substance use &amp; psychiatry Alcohol dependence diagnosed in 43% murderers, 38% had previous contact with psychiatric services, 10% experienced anxiety/depression.</p> <p>Childhood Sex murderers experienced less change in primary care (<math>\chi^2 = 4.14, df = 1, p &lt; .005</math>), father were more present (<math>\chi^2 = 4.21, df = 1, p &lt; .05</math>) and more stable (<math>\chi^2 = 3.82, df = 1, p &lt; .05</math>).</p>	<p>Strengths: - Large sample size</p> <p>Weaknesses: - No reported validity of measures used - Use of self-report: possible deceitfulness. - Comparison group much larger than sex murder group</p>
5	Langevin Canada 2003	This study aimed to compare sexual murderers to other sexual offenders in order to explore the potentially unique characteristics of sexual murderers described through the literature.	<p>Sample: All males - 33 sex killers, 80 sexual aggressives, 23 sadists, 611 general sex offenders</p> <p>Sex killers 33 sex killers, mean age seen 32.06, mean age 1<sup>st</sup> offence</p> <p>Sexual aggressives 80 sexual aggressives, mean age seen 27.58, mean age 1<sup>st</sup> offence 16.25</p> <p>Sadists 23 sadists, mean age seen 27.57, mean age 1<sup>st</sup> offence</p>	<p>Clinical interview</p> <p>Questionnaires - Clarke Sex Questionnaire for Males (Langevin &amp; Paitich, 2002) - Freund Phallometric Test of Erotic Preference (Freund, McKnight, Langevin, &amp; Cibiri, 1972) <i>Substance abuse</i> - MAST (Selzer, 1971) - Drug Abuse Screening Test (Skinner, 1982) - Drug Use Survey (Langevin, 1985) <i>Mental illness and personality</i> - Schedule for Affective Disorders and Schizophrenia (Endicott &amp; Spitzer, 1978) - Minnesota Multiphasic Personality Inventory &amp; Millon Clinical Multiaxial Inventory</p>	<p>Sexual history and preference Fetishism more common in sex murderers and sadists (<math>\chi^2=15.49, df=3, p&lt;.001</math>), sex murderers and sadists sig more collected pornography (<math>\chi^2=41.85, df=3, p&lt;.001</math>)</p> <p>Substance abuse Sex murderers abused sig more drug (81.5%) (<math>\chi^2=45.24, p&lt;.001</math>); sex murderers and sexual aggressives more likely to be drinking, sex murderers and sadists more likely to be using drugs.</p> <p>Forensic history: SM committed crime younger and had more childhood problem behaviours [theft (<math>\chi^2=72.19, p&lt;.001</math>), cruelty to animals (<math>\chi^2=38.45, p&lt;.001</math>), vandalism (<math>\chi^2=20.95, p&lt;.001</math>), firesetting (<math>\chi^2=36.72, p&lt;.001</math>), gang membership (<math>\chi^2=21.64, p&lt;.001</math>), gun ownership (<math>\chi^2=48.14, p&lt;.001</math>), reform school (<math>\chi^2=34.57, p&lt;.001</math>)]. Mental illness &amp; Personality</p>	<p>Strengths: - Large sample size - Variety of measures used - Conducted over several years: psychometrics updated with improvements in clinical practice</p> <p>Weaknesses: - No reported validity of measures used - Tests not all administered to all participants i.e. varying sample sizes</p>

	Author(s), Country, Year	Aims	Sample demographics	Outcome measures	Results	Strengths & Weaknesses
			22.17  General sex offenders 611 general sex offenders, mean age seen 31.42, mean age 1 <sup>st</sup> offence 24.32	- Diagnoses reported by other clinicians - Hare Psychopathy Check List-Revised (Hare, 1991) <i>Criminal charges, convictions, violence</i> - National Royal Canadian Mounted Police records up to 1999 - Cumulative Violence Scale (Langevin, 1985) <i>Neuropsychology</i> - Wechsler Adult Intelligence Scale-Revised - Halstead-Reitan Neuropsychological Test Battery - Blood tests - medical history	Sig more sex murderers & sadists diagnosed as psychotic ( $\chi^2=11.09, p<.02$ ), ASPD most common in SM. SM higher scores on psychopathy ( $F=46.37, p<.001$ ). Neuropsychology: SM least education ( $F=2.57, p<.10$ ), failed most grades ( $\chi^2=23.03, p<.001$ ) and attended sig. more special education ( $\chi^2=33.57, p<.001$ ). No sig diff of IQ	
6	Koch, Bernier, Hill, Briken  Germany  2011	This study aimed to compare sexual murderers to non-homicidal sexual offenders on psychiatric disorders, psychopathy, and overall psychiatric morbidity.	Sample - all males: 166 sexual murderers, 56 non-homicidal sexual offenders. All collected from forensic psychiatric court reports between 2001 and 2007  Sex offenders: Mean age 38.9 ( $SD = 10.5$ ) 85% German  Sex murderers: Mean age 32.8 ( $SD = 12.2$ ) 97.6% German	Measures - Structured Clinical Interview for DSM-IV for Axis II disorders (SCID-II) - Hare Psychopathy Check List-Revised (Hare, 1991)	Substance use Sex murderers used significantly more alcohol pre-IO (63.2% vs. 41%). Paraphilias, Sex Dysfunctions, Axis II Disorders, Psychopathy Sex murderers had significantly more paraphilias (sadism/fetishism), more frequent sex dysfunction, more Axis II diagnosis. No significant difference in antisocial PD. Sex murderers significantly higher mean total PCL-R score, but no difference in diagnosis of psychopathy. Multivariate analysis Alcohol 3x more likely in sex murder ( $OR = 3.2, p = 0.018$ ); PD 2x more likely in sex murders with adult victims vs. child victims ( $p = 0.053$ ) and 7x more paraphilia ( $p = 0.001$ ). Independent of victim age, sexual sadism significantly more likely in sex murderers.	Strengths: - Large sample size - Multivariate regression: specificity - Non-significant p values reported  Weaknesses: - Selection bias: only offenders who agreed to volunteer (i.e. more pro-social) were included in the study. - Retrospective ascription of variables - reliant on good quality clinical notes (court report) - No reported validity of measures used - Inter-rater reliability not reported
7a	Nicole & Proulx  2007  Canada	This study explored the developmental paths and criminal history of sexual	Sample – all males: 101 sexual aggressors and 40 sexual murderers Correctional Service Canada.  Sexual aggressors: Mean age at incarceration 32.8	Interviews with subjects – information from Royal Canadian Mounted Police’s FPS (Fingerprint System) Files. Interviews discussed: Developmental factors Exposure to inadequate models Victimization	Developmental factors: <i>Exposure to inadequate models:</i> Higher in SM but not sig. >50% in each group reported exposure to abusive alcohol, consumption & psychological violence. Almost 50% both witnessed physical violence. No sig diff on global, duration-weighted scale of exposure to inadequate models.	Strengths: - Good sample size - Reported some internal consistency  Weaknesses: - Comparison group



	Author(s), Country, Year	Aims	Sample demographics	Outcome measures	Results	Strengths & Weaknesses
		murderers and sexual offenders, and attempted to ascertain whether crime severity was dependent on the criminal's inadequacy and criminal career intensity.	<p>(SD 8.9). At IO 48.5% single, 13% separated, divorced or widowed, 38.5% in traditional or common-law marriages. 78.2% whites.</p> <p>Sexual murderers: Mean age at incarceration 32.3 (SD 10.4). At IO 75% single, 7.5% separated, divorced or widowed, 17.5% in traditional or common-law marriages. 95% white.</p>	<p>Consumption of alcohol and drugs Inappropriate behaviours Education Atypical sexual behaviours Sexual fantasies Developmental profiles Criminal career</p>	<p><i>Victimization:</i> SM victim of more violence (64.1% vs. 41.6%) and incest (20.5% vs. 5.9%). Parental abandonment more prevalent in sex aggressors (44.6% vs. 38.5%). No sig diff on global victimization scale.</p> <p><i>Consumption of alcohol and drugs:</i> No sig diff on alcohol use, abuse and dependence but generally more in SM. SM drank sig more regularly at younger age (14.7 vs. 17.7; <math>\eta^2 = 0.25, p &lt; 0.05</math>). High proportion of both groups alcohol dependent (46.3% sex agg vs. 48.7% SM). No sig diff on drug use, but SM used regularly at younger age (consumption 15.8 vs. 19.4; <math>\eta^2 = 0.27, p &lt; 0.05</math>; abuse: 17.3 vs. 21.6, <math>\eta^2 = 0.28, p &lt; 0.01</math>).</p> <p><i>Inappropriate behaviours in childhood:</i> SM sig. more social isolation (54.1% vs. 30.6%, <math>\phi = 0.22, p &lt; 0.01</math>), daydreaming (43.2% vs. 20.2%; <math>\phi = 0.23, p &lt; 0.01</math>), habitual lying (40.5% vs. 20.0%; <math>\phi = 0.21, p &lt; 0.01</math>), running away from home (27.0% vs. 10.1%; <math>\phi = 0.21, p &lt; 0.05</math>) and reckless behaviours (24.3% vs. 2.0%; <math>\phi = 0.36, p &lt; 0.001</math>). Also sig. lower self-esteem (56.8% vs. 26.3%; <math>\phi = 0.29, p &lt; 0.01</math>).</p> <p><i>Inappropriate behaviours in adolescence:</i> Similar to above, more prevalent in SM for daydreaming, social isolation, habitual lying, reckless behaviour &amp; lower self-esteem and phobias.</p> <p><i>Education:</i> SM sig. lower education (<math>\phi = 0.22, p &lt; 0.01</math>), more discipline problems (62.9% vs. 43.8%; <math>\phi = 0.14, p &lt; 0.05</math>). No sig diff. of learning disability.</p> <p><i>Atypical sexual behaviours:</i> Low in both groups &amp; no sig diff (consumption of pornography, phone-sex, compulsive masturbation).</p> <p><i>Sexual fantasies</i> Deviant sex fantasies in childhood/adolescence sig more in SM (39.5% vs. 22.7%; <math>\phi = 0.17, p &lt; 0.05</math>).</p> <p><i>Developmental profiles:</i> Strong association between offender type and type of developmental profile (<math>\phi = 0.26, p &lt; 0.01</math>).</p> <p><i>Criminal career:</i> No sig diff previous criminal career (71.8% SM, 80.9% sex</p>	<p>bigger than sex murder group</p> <ul style="list-style-type: none"> <li>- Some scale internal consistency lower than recommended</li> </ul>

	Author(s), Country, Year	Aims	Sample demographics	Outcome measures	Results	Strengths & Weaknesses
					aggressor). Sex aggressors had higher mean global severity score for adult crimes against property (112.74 vs. 49/.51). SM had higher global score for crime against person (64.73 vs. 33.51). Charges for other crimes higher in sex aggressors (7.42 vs. 2.23).	
7b	Proulx & Sauvêtre 2007 Canada	This study aims to evaluate and compare the prevalence of serious mental and personality disorders among sexual murderers and sexual aggressors of women.	<p>Sample – all males: 101 sexual aggressors and 30 sexual murderers Correctional Service Canada.</p> <p>Sexual aggressors: Mean age at incarceration 32.8 (SD 8.9). At IO 48.5% single, 13% separated, divorced or widowed, 38.5% in traditional or common-law marriages. 78.2% whites.</p> <p>Sexual murderers: Mean age at incarceration 32.3 (SD 10.4). At IO 75% single, 7.5% separated, divorced or widowed, 17.5% in traditional or common-law marriages. 95% white.</p>	Millon Clinical Multiaxial Inventory (completed for 75SA and 25SM) Diagnostic and Statistical Manual-IV	<p>Axis I DSM-IV mental disorders: Sexual sadism sig present in SM (16.7%). Other paraphilias and psychotic disorders rare. No dissociative, anxiety and mood disorders. All Axis I rare amongst sex aggressors – no sig diff between groups.</p> <p>Axis II DSM-IV mental disorders: In SM ASPD (35.7%), borderline (28.6%), narcissistic (25%) PD. Sig more narcissism in SM compared to sex aggressors (25% v. 9.9%, <math>\phi = 0.18</math>, <math>p = 0.04</math>). No sig diff of prevalence of disorders between groups. PD traits in SM narcissistic (28%) antisocial (24%) dependent (20%) paranoid (16%) histrionic (16%). No sig diff between groups.</p> <p>K-means cluster analysis: Profile 1: no mean base-rate reached threshold of 75. Profile 2: four personality scales exceeded 75 – avoidant, dependent, schizoid, passive-aggressive. Prevalence of both profiles similar in both groups.</p>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>- good sample size</li> <li>- using previously validated measures</li> </ul> <p>Weaknesses:</p> <ul style="list-style-type: none"> <li>- all samples from penitentiary (serious mental disorders may be under-represented)</li> <li>- Sexual sadism diagnosis of questionable validity</li> </ul>

Table 5:  
*Quality of Included Studies*

Study & Overall score	Aims	Bias	Design	Results & Outcomes	Validity	Method of Statistical Analysis
Oliver et al. (2007) 92.8%	2/2 (100%)	10/10 (100%)	2/4 (50%)	8/8 (100%)	4/4 (100%)	Between groups comparisons (t-test), Pearson's chi-square, means and standard deviations, percentages Analysis of variance (ANOVA) Multivariate analysis of variance (MANOVA)
Milsom et al. (2003) 85.7%	2/2 (100%)	9/10 (90%)	2/4 (50%)	8/8 (100%)	3/4 (75%)	Qualitative data: Grounded Theory Quantitative data: Between group comparisons (t-test), Pearson's chi-square, means and standard deviations, percentages
Langevin et al. (1988) 71.4%	2/2 (100%)	7/10 (70%)	1/4 (25%)	8/8 (100%)	2/4 (50%)	Between group comparisons (t-test), Pearson's chi-square, means and standard deviations, percentages Analysis of variance (ANOVA) Stepwise multiple comparisons: Newman-Keuls test
Grubin (1994) 82.1%	2/2 (100%)	10/10 (100%)	0/4 (0%)	7/8 (87.5%)	4/4 (100%)	Between group comparisons (t-test), Pearson's chi-square, means and standard deviations, percentages
Koch et al. (2011) 82.1%	2/2 (100%)	8/10 (80%)	2/4 (50%)	7/8 (87.5%)	4/4 (100%)	Between group comparisons (t-test), Pearson's chi-square, means and standard deviations, percentages Analysis of variance (ANOVA)
Nicole & Proulx (2007) 85.7%	2/2 (100%)	10/10 (100%)	0/4 (0%)	8/8 (100%)	4/4 (100%)	Means and standard deviations Phi or Eta coefficient (degree of association)
Proulx & Sauvêtre (2007) 89.3%	2/2 (100%)	10/10 (100%)	3/4 (75%)	8/8 (100%)	2/4 (50%)	Phi or coefficient (degree of association)

## 2.9 Results

### 2.9.1 Descriptive data synthesis

The review included three studies from the United Kingdom, four studies from Canada, and a study from Germany. The systematic review included a total of 1483 male participants, and sample sizes are detailed in Table 6.

Table 6:  
*Sample Size of Included Studies*

<b>Study</b>	<b>Sample Size</b>
Oliver, Beech, Fisher & Beckett (2007)	170
Milsom, Beech & Webster (2003)	35
Langevin, Wright, Marchese & Handy (1988)	26
Grubin (1994)	142
Langevin (2003)	747
Koch, Berner, Hill & Briken (2011)	222
Nicole & Proulx (2007)	141
Proulx & Sauvêtre (2007)	131
<b>TOTAL</b>	<b>1614</b>
<i>Same sample used in Nicole &amp; Proulx (2007) and Proulx &amp; Sauvêtre (2007)</i>	<b>1483</b>

Participants ranged in age from 13 to 70 years old. The participants in the study included 350 sex murderers and 1133 other sexual offenders. Controls and comparisons consisted of general sexual offenders, rapists, sexual aggressives and sadists who engaged in sexual assault (see Table 7).

Table 7  
*Offending Characteristics of Participants*

<b>Study</b>	<b>Sexual murderers</b>	<b>Sex offenders</b>	<b>Additional info</b>
Oliver, Beech, Fisher & Beckett (2007)	58	112	Rapists
Milsom, Beech & Webster (2003)	19	16	Rapists
Langevin, Wright, Marchese & Handy (1988)	13	13	Non-homicidal sexual aggressors
Grubin (1994)	21	121	Rapists
Langevin (2003)	33	714	80 sexual aggressives, 21 sadists (who engaged in sexual assault), 611 general sex offenders
Koch, Berner, Hill & Briken (2011)	166	56	Non-homicidal sex offenders
Nicole & Proulx (2007)	40	101	Rapists
<i>Proulx &amp; Sauvêtre (2007)</i>	<i>30</i>	<i>101</i>	<i>Rapists</i>
<b>TOTAL (- repeated sample)</b>	<b>350</b>	<b>1133</b>	

The aims and interests of all included studies are outlined in Table 8. All of the eight papers included in this review explored and reported demographic characteristics of sexual murderers and their comparisons.

Table 8:  
*Aims and interests of included studies*

	Demographic characteristics	Early experiences & emotions	Psychopathology & Personality	Sexual behaviours & Paraphilia	Substance use	Offence & Victim details	Fantasies	Forensic History
Oliver et al. (2007)	✓	✓	✓	✓	✓	✓	*	✓
Milsom et al. (2003)	✓	✓						✓
Langevin et al. (1988)	✓	✓	✓	✓	✓	✓		✓
Grubin (1994)	✓	✓	✓	✓		✓	✓	✓
Langevin (2003)	✓		✓	✓	✓			✓
Koch et al. (2011)	✓	✓	✓	✓	✓	✓		
Nicole & Proulx (2007)	✓	✓	✓	✓	✓		✓	✓
Proulx & Sauvêtre (2007)	✓		✓					

\*Reported in Beech, Fisher & Ward (2005)

The quality assessment conducted by the researcher as part of the review indicated that all of the studies were considered of ‘high quality’ (70% or over), with Langevin et al. (1988) found to be of lowest quality (71.4%) amongst these. Studies were found to be eclectic in their outcome measures as highlighted above, rendering the aggregation of findings more complex. The studies identified however provide some valuable information regarding the similarities and differences between sexual murderers and other sexual offenders.

### 2.9.1 Study design and outcome measures

All studies included in this review consisted of case control studies. Outcome measures varied greatly depending on the aims and interests of the studies. The most common outcome measures consisted of between group comparisons (t-test), Pearson’s chi-square, and descriptive prevalence/degree of association.

### 2.9.3 Quality of included studies

The present review did not discard studies based on quality as no studies were found to be of low quality (<40%). All the studies stated their aims explicitly and clearly. Their aims were generally expressed immediately before the method was outlined. This therefore enabled a clear understanding of the purpose of the study.

Sampling and selection bias was considered good to very good (80-100%) for all but one study (Langevin et al., 1988). This was due to the cases and comparisons not being selected from the same population, a lack of description of a system for selecting participants, and a moderate number of participants.

The studies selected appear to be weakest on study design, due to the lack of identified confounding variables. Two of the studies (Grubin, 1994; Nicole & Proulx, 2007) did not identify confounding variables, and Langevin et al. (1988) only partially identified potentially confounding variables. Only Proulx and Sauvêtre (2007) partially took into account potential confounding variables in their design/analysis. All other studies failed to reflect confounding variables in the analysis of the results. This may have had an impact on the conclusions drawn by these specified studies.

All but one (Grubin, 1994) of the studies used met full criteria for results and outcome, due to using objective measurements and reflecting these in both sets of participants. This therefore enabled better validity of the results and subsequently conclusions drawn by the above studies. The implications for practice were clear and appropriate in all studies, although at times implied rather than explicitly stated.

Three studies obtained partial internal/external validity scores, with Langevin et al. (1988) and Proulx and Sauvêtre (2007) obtaining 50%, and Milsom et al. (2003) obtaining 75%. This score reflected for all studies partial external validity ensuing from

results not fitting entirely with other evidence. This may have been caused by both the specificity and size of the samples, and may render results less reliable.

From the quality assessment, it can therefore be concluded that this systematic review is limited by the quality of the studies included. Studies can be listed in descending order of study quality as follows: Oliver et al. (2007); Proulx and Sauvêtre (2007); Milsom et al. (2003) and Nicole & Proulx (2007); Grubin (1994) and Koch et al. (2011); and Langevin et al. (1988).

#### 2.9.4 Summary of results by aims and interests

##### *Demographic characteristics*

Table 9  
*Summary of demographic characteristics\**

	Age at time of offence		Likelihood of being in a relationship	
	Sexual Murderers	Rapists	Sexual Murderers	Rapists
Oliver et al. (2007)	↓	↑	↓	↑
Milsom et al. (2003)	=	=	↑	↓
Langevin et al. (1988)	=	=	=	=
Grubin (1994)	↑	↓	↓	↑
Langevin (2003)	↓	↑	/	/
Koch et al. (2011)	↓	↑	/	/
Nicole & Proulx (2007)	/	/	↓	↑
<i>Proulx &amp; Sauvêtre (2007)</i>	/	/	↓	↑

\* ↓ lower      ↑ higher      = same in both groups      / not reported

*Proulx & Sauvêtre (2007) not reported as demographic characteristics are the same as Nicole & Proulx (2007)*

All studies included in this review reported the demographic characteristics of both sexual murderers and their sexual offender comparison group (Table 9). Three studies reported sexual murderers were significantly younger than other sexual



offenders at the time of their offence (Koch et al., 2011; Langevin, 2003; Oliver et al., 2007), whereas Grubin (1994) found sexual murderers to be significantly older at the time of offence. Two studies found sexual murderers and rapists' ages not to differ significantly (Langevin et al., 1988; Milsom et al., 2003). Nicole and Proulx (2007) and Proulx and Sauvêtre (2007) did not compare age between groups but reported similar mean age at time of incarceration.

Similarly to the offender's age, contradicting results were obtained regarding the relationship status of offenders at the time of their offence. Whereas three studies found sexual murderers to be significantly less likely to be in a relationship at the time of the offence (Grubin, 1994; Nicole & Proulx, 2007; Oliver et al., 2007), Milsom et al. (2003) found sexual murderers significantly more likely to be in a relationship at the time of offending. In addition, Langevin et al. (1988) found no significant differences in marital status.

#### *Early experiences / Emotions*

Table 10  
*Summary of early experiences\**

	Abuse	
	Sexual Murderers	Rapists
Oliver et al. (2007)	=	=
Milsom et al. (2003)	↑	↓
Langevin et al. (1988)	↑	↓
Grubin (1994)	=	=
Langevin (2003)	/	/
Koch et al. (2011)	↑	↓
Nicole & Proulx (2007)	↑phys violence ↑incest	↓phys violence ↓incest
Proulx & Sauvêtre (2007)	/	/

\* ↓ lower      ↑ higher      = same in both groups      / not reported      n.s. non-significant  
*Proulx & Sauvêtre (2007) not reported as demographic characteristics are the same as Nicole & Proulx (2007)*

All but two studies (Langevin, 2003; Sauvêtre, 2007) investigated and reported early experiences and emotions of both sexual murderers and their rapist comparison group (Table 10). Four studies found sexual murderers to have reported significantly more abuse during their childhood (Koch et al., 2011; Langevin et al., 1988; Milsom et al., 2003; Nicole & Proulx, 2007), with Nicole and Proulx more specifically reporting significantly more incest and physical violence within sexual murderers. Their study however indicated no statistically significant difference on global scale of victimization. Two studies however found no significant differences on self-reported childhood victimization (Grubin, 1994; Oliver et al, 2007) however half of both groups reported having experienced sexual abuse, in majority from a male perpetrator friend, acquaintance or family, whilst the majority had been physically abused.

Grubin (1994) found the family structure of sexual murderers to appear relatively more stable than in those who had not killed, for example with less changes in primary care and more present fathers. Whereas Oliver et al. (2007) found no significant differences in parental perceptions between groups, Milsom et al. (2003) found a concept of negative father image, stemming from participants having been physically abused by their fathers and feeling ignored within a distant relationship. This was further supported by Langevin et al. (1988), who found sex offenders to have more disturbed relationships with their fathers when compared to their relationships to their mother. Similarly to Oliver et al. (2007) however, participants reported being emotionally unattached to parents. Both a male and female grievance was identified, with feelings of jealousy towards brothers and sisters. As a result, participants identified themselves as victims and found events to be out of their control.

Table 11:  
*Summary of psychopathology and personality\**

	Psychopathy & psychopathology		Education & IQ	
	Sexual Murderers	Rapists	Sexual Murderers	Rapists
Oliver et al. (2007)	= prior MH contact	= prior MH contact	↑ IQ	↓ IQ
Milsom et al. (2003)	/	/	/	/
Langevin et al. (1988)	↑ PCL-R + MI	↓ PCL-R	↑ IQ	↓ IQ
Grubin (1994)	/	/	=educ	=educ
Langevin (2003)	↑psychosis + sadism	↓psychosis	↓educ 2x failed neuro tests	↑educ
Koch et al. (2011)	↑ PCL-R	↓ PCL-R	↓ educ	↑educ
Nicole & Proulx (2007)	/	/	↓ educ	↑ educ
Proulx & Sauvêtre (2007)	↑narcissism	↓narcissism	/	/

\* ↓ lower      ↑ higher      = same in both groups      / not reported      MI mental illness

All but one study (Milsom et al., 2003) included in this review investigated and reported the psychopathology, personality or neuropsychology of sexual murderers relative to that of other sexual offenders.

*Personality disorder*

Personality disorders were found to be common amongst both sexual murderers and sexual offenders. Antisocial personality disorder was identified by Langevin (2003) as the most common diagnosis amongst sexual murderers. Whereas Langevin et al. (1988) found it to distinguish between sexual murderers and other sexual offenders, Koch et al. (2011) found no significant differences between groups on

antisocial personality disorder. Oliver et al. (2007) explored the prevalence of personality disorder using the antisocial personality questionnaire and the Millon Clinical Multiaxial inventory-III (MCMI-III), and found no effect of offender type on personality scales. Despite these results, rapists were found to significantly differ from sexual murderers in terms of paranoid suspicion, resentment and self-esteem. Contrarily to the above, Proulx and Sauvêtre (2007) found significantly more narcissism in sexual murders than in rapists, however observed no other significant differences. Koch et al. (2011) found sexual murderers to be significantly more likely than non-homicidal sexual offenders to be diagnosed with an Axis II disorder (personality disorders in general, schizoid personality disorder, any cluster C personality disorder and avoidant personality disorder), with schizoid personality disorder being present three times more in sexual murderers. Langevin (2003) compared both groups using the Minnesota Multiphasic Personality Inventory (MMPI) and the Millon Clinical Multiaxial Inventory (MCMI) and found no significant differences between groups based on these measures. Similarly, Oliver et al. (2007) found no main effect of offender type on personality scales, despite a significant difference in response style, with rapists presenting as significantly more self-revealing.

### *Psychopathy and psychopathology*

Koch et al. (2011) found sexual murderers to have significantly higher scores on the PCL-R when compared to other sexual offenders; however this result was not significant with a psychopathy diagnosis. Similarly, Langevin et al. (1988) found significantly higher PCL-R scores in sexual murderers when compared to other sexual offenders but not in comparison to non-homicidal sadists.

Langevin (2003) found sexual murderers to receive a diagnosis of sadism significantly more often than other sexual offenders. Furthermore, sexual murderers were found to present with significantly more psychosis (Langevin, 2003) and were considered not guilty by the courts by reason of insanity significantly more often (Langevin et al., 1988). Despite this, Oliver et al. (2007) found no significant difference between groups in prior contact with psychiatric services.

### *Neuropsychology*

Although three studies found sexual murderers to have significantly lower education level (Koch et al., 2011; Langevin, 2003; Nicole & Proulx, 2007), Grubin (1994) found no significance between groups on this factor. Sexual murderers were found to have higher estimated IQ when compared to other sexual offenders (Langevin et al., 1988; Oliver et al., 2007). Both groups were found to be of average range of intelligence; however twice as many sexual murderers failed neuropsychological tests when compared to other sexual offenders (Langevin, 2003). Nicole and Proulx (2007) however found no differences in prevalence of learning disabilities.

*Sexual behaviours and Paraphilia*

Table 12:  
*Summary of sexual behaviours and paraphilia\**

	Sexual Murderers	Rapists
Oliver et al. (2007)	= Sex interest, paraphilia, preoccupation	= Sex interest, paraphilia, preoccupation
Milsom et al. (2003)	/	/
Langevin et al. (1988)	= normal sex behaviour ↑ transvestism, voyeurism ↑ sex sadism	= normal sex behaviour ↓ transvestism, voyeurism ↓ sex sadism
Grubin (1994)	↑ Paraphilia	↓ Paraphilia
Langevin (2003)	= consenting sex ↑ sex sadism ↑ porn	= consenting sex ↓ sex sadism ↓ porn
Koch et al. (2011)	↑ Paraphilia ↑ sex sadism	↓ Paraphilia ↓ sex sadism
Nicole & Proulx (2007)	= atypical sex behaviour in childhood/adolescence	= atypical sex behaviour in childhood/adolescence
Proulx & Sauvêtre (2007)	/	/
* ↓ lower	↑ higher	= same in both groups / not reported

Six studies included in this review investigated and reported the sexual behaviours and paraphilia (Table 12) of sexual murderers relative to that of rapists (Grubin, 1994; Koch et al., 2011; Langevin et al., 1988; Langevin, 2003; Nicole & Proulx, 2007; Oliver et al., 2007), although Grubin only reported these minimally. Oliver et al. (2007) identified no significant differences between groups on types of sexual interests and paraphilias, including degree of interest or preoccupation with sexual matters. This was further supported by findings that groups did not differ on atypical sexual behaviours in childhood and adolescence (Nicole & Proulx, 2007), consenting sexual contacts with female partners (Langevin, 2003) and did not significantly differ on frequency or diversity of conventional sexual behaviours

(Langevin et al., 1988). In contrast, Grubin (1994) and Koch et al. (2011) found significantly more paraphilias in sexual murderers, with voyeurism and transvestism found to be significantly more present in sexual murders when compared to other sexual offenders (Langevin et al., 1988; Langevin, 2003). Sexual sadism was found to exist most in sexual murderers (Koch, 2011; Langevin et al., 1988; Langevin 2003), similarly to fetishism (Langevin, 2003). Sexual murderers and sadists were additionally found to collect significantly more pornography (Langevin, 2003).

### *Substance use*

Table 13:  
*Summary of substance misuse\**

	Sexual Murderers	Rapists
Oliver et al. (2007)	=	=
Milsom et al. (2003)	/	/
Langevin et al. (1988)	At assessment: = At Index Offence: =	At assessment: = At Index Offence: =
Grubin (1994)	/	/
Langevin (2003)	At assessment: ↑ drugs ↓ alcohol At Index Offence: ↑ drunk ↑ drugs	At assessment: ↓ drugs ↑ alcohol At Index Offence: ↓ drunk ↓ drugs
Koch et al. (2011)	At Index Offence: ↑ drunk ↓ drugs	At Index Offence: ↓ drunk ↑ drugs
Nicole & Proulx (2007)	↑ but <i>n.s.</i>	↓ but <i>n.s.</i>
Proulx & Sauvêtre (2007)	/	/

\* ↓ lower      ↑ higher      = same in both groups      / not reported      *n.s.* not significant

Five studies included in this review investigated and reported substance misuse of sexual murderers as compared to other sexual offenders (Koch et al., 2011; Langevin, 2003; Langevin et al., 2011; Nicole & Proulx, 2007; Oliver et al., 2007). These studies split their findings into substance misuse prior to offending and at assessment, and substance misuse at the time of the offence (Table 13).

At the time of assessment, Langevin (2003) found sexual murderers to use street drugs significantly more than both sadists and sexually aggressive men. Overall, sexual murderers and sadists were found to drink less alcohol. Langevin et al. (1988) however found large numbers of both drug and alcohol abuse amongst sexual killers, sexually aggressive men and non-sexual killers. Furthermore, they found around half of each group to be heavy drinkers and half of each group to have used street drugs. Cocaine was found to be most used by sexually aggressive men. Similarly, Nicole and Proulx (2007) found a higher prevalence of regular alcohol and drugs use within sexual murderers, although not reaching statistical significance. Oliver et al. (2007) found a high prevalence of both prior alcohol and drug consumption across both rapists and sexual murderers.

At the time of offending, sexual murderers and sexually aggressive men were significantly more likely to be drunk or drinking (Langevin, 2003). These findings were replicated by Koch et al. (2011) who similarly found 63.2% of sexual murderers to have consumed alcohol compared to 41% of non-homicidal sexual offenders. Langevin et al. (1988) however found no significant differences between groups, with 65% of all participants using either alcohol or substances, and 21% of this group using both. Contradicting findings were however found regarding drug use, with Langevin (2003) finding sexual murderers and sadists more likely to be using drugs or intoxicated at the time of the offence, and Koch et al. (2011) identifying non-homicidal sexual offenders as more likely to have used illicit substances. Langevin et al. (1988) further support the latter, with half of sexual aggressive and non-sexual murderers and only a quarter of sexual murderers being intoxicated at the time of offending. Langevin et al. (2011)



conclude that substance use is a poor predictor of the degree of violence used within the offence.

*Offence and victim details*

Table 14:  
*Summary of offence and victim details\**

	Sexual Murderers	Rapists
Oliver et al. (2007)	↑ Victim ½ stranger	↓ Victim ½ stranger
Milsom et al. (2003)	/	/
Langevin et al. (1988)	Motive: sex release & anger	Motive: sexual release
Grubin (1994)	↑ Victim Motive: anger most often	↓ Victim Motive: ?
Langevin (2003)	/	/
Koch et al. (2011)	Motive: power & superiority	Motive: ?
Nicole & Proulx (2007)	/	/
Proulx & Sauvêtre (2007)	/	/

\* ↓ lower      ↑ higher      = same in both groups      / not reported

As detailed in Table 14, four studies included in this review investigated and reported offence and victim details of sexual murderers related to that of other sexual offender (Grubin, 1994; Koch et al., 2011; Langevin et al., 1988; Oliver et al., 2007).

Whereas Langevin et al. (1988) found non-sex killers to have older victims when compared to sexual murderers and sexual aggressives, other studies indicated that sexual murderers had generally significantly older victims, with Grubin (1994) and Oliver et al. (2007) both reporting sexual murderers having offended against older adults (i.e. over the age of 60). This is further reported by Grubin’s findings that 44% of victims’ age was within 10 years of their offenders in a sample of 21 sexual murderers compared to 72% for sexual offenders. As indicated by Oliver et al. (2007) however, it

is important to remember confounding variable of older victims being potentially more fragile and therefore more likely to die as a result of the attack.

Whereas Oliver and colleagues report roughly half of victims to be strangers (50% for murderers and 56% for rapists), Koch et al. (2011) report most victims to be either acquaintances or strangers, rather than relatives. Only Langevin et al. (1988) and Grubin (1994) reported motives of the crime. Langevin and colleagues found sexual killers to be motivated by a mixture of sexual release and aggression/anger, whereas sexual aggressives were motivated purely by sexual release. Grubin (1994) reported sexual murderers' motives as being either death as sexually arousing (3 cases), needing to silence the victim (4 cases) and panic on behalf of the offender (2 cases). Furthermore, Grubin found murderers to have been precipitated by anger in 50% of cases, and by a recent loss in self-esteem in 34% of cases. Finally, Grubin reported most deaths to have resulted from strangulation (67%) as opposed to stabbing (10%).

### *Fantasies*

Table 15  
*Summary of fantasies*

	Sexual Murderers	Rapists
Oliver et al. (2007)	/	/
Milsom et al. (2003)	/	/
Langevin et al. (1988)	/	/
Grubin (1994)	= fantasy life = pornography use = frequent fantasies	= fantasy life = pornography use = frequent fantasies
Langevin (2003)	/	/
Koch et al. (2011)	/	/
Nicole & Proulx (2007)	↑ Childhood & adolescence deviant fantasy	↓ Childhood & adolescence deviant fantasy
Proulx & Sauvêtre (2007)	/	/
* ↓ lower	↑ higher	= same in both groups / not reported

Two studies (Grubin, 1994; Nicole & Proulx, 2007) investigated and reported the fantasies of sexual murderers (Table 15). In line with the literature, Grubin (1994) indicated the reluctance of sexual offenders to discuss their sexual fantasies in detail. Whereas Nicole and Proulx (2007) found more deviant fantasies in sexual murderers during childhood and adolescence, Grubin (1994) found no statistically significant differences between groups in terms of fantasy life, and frequent use of pornography, although frequent fantasies and use of prostitutes were found to be more common in those who had murdered (38% vs. 27%). Comparatively, ritualistic offence components were found in 20% of sexual offenders as opposed to 14% of sexual murderers.

### *Forensic history*

Table 16  
*Summary of forensic history\**

	Sexual Murderers	Rapists
Oliver et al. (2007)	= Age 1 <sup>st</sup> offence = juvenile sex offending	= Age 1 <sup>st</sup> offence = juvenile sex offending
Milsom et al. (2003)	↓ violent offences = Age 1 <sup>st</sup> offence ↓ rape convict = nonsexual offences ↓ sentences as adults	↑ violent offences = Age 1 <sup>st</sup> offence ↑ rape convict = nonsexual offences ↑ sentences as adults
Langevin et al. (1988)	= childhood violence indicators	= childhood violence indicators
Grubin (1994)	↑ rape convict	↓ rape convict
Langevin (2003)	↓ age 1 <sup>st</sup> offence ↑ problem behaviour	↑ age 1 <sup>st</sup> offence ↓ problem behaviour
Koch et al. (2011)	/	/
Nicole & Proulx (2007)	↓ age 1 <sup>st</sup> offence ↓ charges for 'other' crimes ↑ global severity crime against property & persons	↑ age 1 <sup>st</sup> offence ↑ charges for 'other' crimes ↓ global severity crime against property & persons
Proulx & Sauvêtre (2007)	/	/
* ↓ lower      ↑ higher      = same in both groups      / not reported		

Six studies investigated and reported the forensic history of sexual murderers compare to that of other sexual offenders (Table 16, Grubin, 1994; Langevin et al., 1988; Langevin, 2003; Milsom et al., 2003; Nicole & Proulx (2007) and Oliver et al., 2007), although Grubin (1994) only reported past convictions for rape.

Although Langevin (2003) found sexual murderers and sexual aggressives to have started their criminal careers earlier than other sexual offenders, and Nicole and Proulx (2007) found sexual murderers to have been younger at their first offence, Oliver et al. (2007) and Milsom et al. (2003) found no significant differences between both groups on age of first offence. In support of this, Langevin et al. (1988) found no differences between groups on childhood violence indicators. Furthermore, no statistical differences were found between childhood and adulthood proneness to violence.

Contradictory findings were found regarding previous convictions, with Milsom et al. (2003) indicating more convictions for rape accumulated by rapists, Grubin (1994) finding more rape convictions in sexual murderers, and Oliver et al. (2007) identifying no significant differences between groups including self-reported juvenile sexual offending. Furthermore, whereas Oliver et al. (2007) found rapists to have committed significantly more violent offences, with overall higher scores on weapon possession and armed robbery behaviour scales (on the Multidimensional assessment of sex and aggression), Milsom and colleagues identified no significant differences between groups for nonsexual offences, including mean number of victims of sexual or violent assaults. They however found rapists to have significantly more previous sentences as adults, however no statistical difference was found for sentences served as juveniles (under the age of 21). Finally, Nicole and Proulx (2007) found rapists to have an overall lower global score for severity of crime against property and persons, but overall more

charges for ‘other’ crimes. One explanation for these overall findings could be that the numbers of offences tend to be skewed and mean differences may distort the true picture, thus resulting in contradictory findings.

Notwithstanding conviction data, Langevin (2003) found sexual offenders to present with the lowest incidence of problem behaviours. These results were further supported by findings that sexual murderers had attended more reform school, were more likely to be a member of a criminal gang, have committed childhood theft and committed acts of vandalism or fire setting, owned significantly more guns, and committed acts of cruelty to animals.

## **2.10 Discussion**

This systematic literature review aimed to review the literature available in order to determine whether sexual murderers differ from rapists in terms of psychological characteristics such as behaviour, motivation and background characteristics; and to determine whether sexual murderers differ qualitatively or quantitatively from rapists. The use of search terms in three electronic databases identified 445 papers. Following initial sifting based on title and abstract, removal of duplicates, the subjecting of inclusion and exclusion criterion and quality assessment, a total of eight papers remained. Of these eight papers, three originated from the United Kingdom, four from Canada, and one from Germany. The systematic review included a total of 1483 male participants. It did not include any female participants. The majority of the studies compared sexual murderers to rapists, whilst one study also compared sexual murderers to sexual sadists who had engaged in sexual assault.

### 2.10.1 Strengths and weaknesses of the review

This systematic review has been able to extract a number of relevant findings to better understand the similarities and differences between sexual murderers and other sexual offenders known to date. A wide search strategy (broad search terms) had to be used in order to capture as many papers as possible, given the current scarce literature on sexual murderers. Initial more specific searches were run by the researcher, however did not acquire enough hits. This may have impacted the ability of the researcher to narrow the focus of the research question. Additionally, all studies were extracted by one researcher only.

The literature sources (Embase, PsycINFO and Medline(r)) were picked for their relevance to the research topic. An attempt was made to acquire unpublished material however no sources were obtained. Due to time constraints, it was not possible to search further literature sources and this may therefore have limited the inclusion of additional available papers. This review has necessitated stringent inclusion and exclusion criteria due to the wide nature of the search terms. For example, only male participants were retained for further analysis. In addition, whereas some studies may have looked at differences between sexual murderers and other sexual offenders, only those with a minimum of ten participants in the sample were kept for further analysis. It is worth noting that aside from case control studies, there were no alternative study designs available (e.g. RCT).

The quality assessment conducted as part of the review established the studies' overall quality based on a) Aims of the study b) Sampling and selection bias c) study design d) Results and outcomes e) Internal and external validity. All of the studies

included in this review had methodological limitations. The most common limitation consisted of study design, due to the lack of identified confounding variables.

Furthermore, two of the studies (Langevin et al., 1988; Milsom et al., 2003) had smaller sample sizes resulting in less robust results. A number of studies additionally had evident limitations as to the validity and reliability of their outcome measures. These consisted of both retrospective ascription of variables leading to reliance on the quality of clinical notes and the quality of patient self-report, as well as lack of reported validity of the outcome measures and lack of reported inter-rater reliability. All the above may therefore have had an impact on the generalizability of the studies included in this review.

It is worth noting that the two groups – sexual murderers and rapists – were distinguished on the basis of crime outcome (i.e. whether the victim was dead or alive). As indicated in the literature however, some put forward a theory that sexual murderers may simply be rapists who kill their victim (Oliver et al., 2007). Although using this distinction may not be fully erroneous, it may be that this further demonstrates the need for comparison along dimensions of sexual offending as opposed to categorical ascriptions of variables. In addition, the methods used to kill the victim are inherently qualitatively different, suggesting that there is something functional in the way that sexual murderers kill their victim. As such, one may propose that sexual murderers have a quality that most rapists do not possess (Healey, Beauregard, Beech & Vettor, 2016; Ressler et al., 1986).

Similarly, this review did not explicitly discriminate between serial and non-serial murderers. Although serial murderers can be thought of as intrinsically different from single sexual murderer in that it implies a series, the terms have been used

interchangeably in the literature. This therefore limited the researcher's ability to exclude the presence of serial sexual murderers in the studies included in this review. It is further not possible to determine whether some sexual murderers may have committed previous offences for which they have not been convicted.

## 2.10.2 Interpretation of the findings

### *Demographic characteristics*

All studies included in this review explored the demographic characteristics of sexual murderers compared to sexual offenders. As evidenced throughout the literature, contradicting results were obtained as to both the age of offenders at the time of their offence and their marital status. The findings by Langevin et al. (1988), Langevin (2003) and Nicole and Proulx (2007) were consistent with the review by Carter and Hollin (2010) in which both groups of offenders were found to be on average in their 20s and 30s. Similarly, Milsom et al. (2003) and Langevin et al. (1988)'s findings that both groups did not differ in age were consistent with James and Proulx (2003). Similarly, increased likelihood of a marital relationship was only support by Milsom et al. (2003).

### *Early experiences / Emotions*

All but two studies (Langevin, 2003; Sauvêtre, 2007) included in this review explored the early experiences and emotions of sexual murderers and sexual offenders. Sexual murderers were found to report significantly more abuse during their childhood (Koch et al., 2011; Milsom et al., 2003; Nicole & Proulx, 2007), and Grubin (1994)



found more than half of the sample to have suffered childhood sexual abuse. These results are consistent with both previous reviews (Carter & Hollin, 2010, James & Proulx, 2003) in which sexual murderers were found to experience high levels of both physical and psychological abuse. Whereas contradicting findings were found in relation to the offenders' relationship with a father-figure, Langevin et al. (1988) and Milsom et al. (2003) found sexual murderers to have a disturbed relationship with their fathers, thus consistent with James and Proulx (2003)'s findings of over half of sexual murderers having a negative father image.

#### *Psychopathology, personality and neuropsychology*

Although there is contradicting evidence relating to the ability to differentiate between groups based on personality pathology, personality disorders were found to be common amongst both groups of offenders. Antisocial personality disorder was found to be most common amongst sexual murderers (Langevin, 2003), and this is consistent with James and Proulx's (2003) findings that 50% of non-serial sexual murderers met the criteria for such diagnosis. It is however worth noting that most offenders meet the diagnostic criteria for antisocial personality disorder as a result of the tautological nature of its diagnosis and lack of specificity as a clinical syndrome (NICE, 2010).

Furthermore, the increased presence of schizoid and avoidant personality disorder is supported by Koch et al. (2011) and James and Proulx (2003). Carter and Hollin (2010) however highlight that personality disorder remains an under-researched area for this group of offenders. Sexual murderers were generally found to have higher psychopathy scores (Koch et al., 2011; Langevin et al., 1988). These replicate the results outlined in Carter and Hollin's (2010) review indicating half of the sample was found to be psychopathic.

### *Sexual behaviours and paraphilia*

Other than Oliver et al. (2007) who found sexual murderers and rapists not to differ on sexual interest, paraphilia and sexual preoccupation, and Nicole and Proulx's (2007) findings that the groups did not differ on atypical sex behaviour in childhood and adolescence, there appears to be a general consensus amongst studies included in this review about sexual behaviours and paraphilias being present in both sets of offenders. A higher proportion of sexual murderers were found to present with sexual sadism and higher use of pornography. These results replicate the findings of James and Proulx (2014)'s review in which over half of non-serial and serial sexual murderers were found to fulfill the criteria for sexual sadism, and 70-80% made use of pornography. Furthermore, a higher proportion of sexual murderers were found to present with transvestism and voyeurism. Such behaviours may however be quite rare, and as such comparing their occurrence may only be indicative of a small sub-group. Carter and Hollin (2010)'s review suggests that the presence of paraphilia may in fact represent a subset of offenders, for whom further research would be indicated.

### *Substance use*

This review indicates that substance use appears not to discriminate between sexual murderers and rapists. Whereas a higher proportion of sexual murderers were found to abuse alcohol (Koch et al., 2011; Langevin, 2003; Nicole & Proulx, 2007), conflicting results were found regarding drug use. It is possible that the high likelihood of both drug use and alcohol use in both groups renders discrimination difficult. Furthermore, most researchers do not explore the kind of drugs used. Consequently, individuals using a drug such as marijuana would be grouped together with those using

cocaine or heroin. It is however evident that different drugs would have different effects. For example, whereas major stimulants such as cocaine would be associated with power-inducing thoughts (including feelings of omnipotence associated with control and sadistic motives), more generic drugs and alcohol use is associated with violence more generally. James and Proulx (2014) found over 40% of both serial and non-serial sexual murderers to abuse drugs, with over 50% of non-serial sexual murderers abusing alcohol. Similar results were highlighted in Carter and Hollin's (2010) review. They suggest however that alcohol and drug use at the time of the offence may be representative of a subset of sexual killers. It is possible that such a subset would demonstrate higher levels of disinhibition associated with high violence and therefore increased likelihood of death. In addition, there is a likely distinction between sexual murderers detained in prison and those detained in secure psychiatric settings.

### *Offence and victim details*

Drawing conclusions on offence and victim details is difficult at this stage due to the different variables commented upon in different studies (e.g. victim age, relationship to offender, motive). Where motive was reported, it appears sexual murderers were motivated by power, anger and sexual release. Carter and Hollin (2010) argue that sexual murderers are most commonly motivated by anger and sexual release, and further indicates that this should be considered a discriminating characteristic of these offenders. It is however at times difficult to establish how studies have extracted the motive from the data, and therefore whether this truly reflects the offender's motive. Whereas Oliver et al. (2007) found around half of victims to be strangers in both sexual murderers and rapists, Carter and Hollin suggest that a stranger victim may be a characteristic of sexual murder, however it is currently not possible to support this

finding based on the current review.

### *Fantasies*

Fantasies have only minimally been commented upon in this review. This may in part be due to the difficult accessing one's fantasies, and the poor reliability of self-report in sex offenders (as indicated in Grubin's (1994) study, sexual offenders are often reluctant to discuss their fantasies in detail). Furthermore, fantasies appear to be at times derived from the offender's particular paraphilia, and may therefore be misconstrued. Carter and Hollin (2010) suggest that deviant fantasies may be present in a subset of offenders. Oliver et al. (2007)'s data, reported in Beech et al. (2005), indicated that offenders' fantasies varied depending on their implicit theories. Whereas those driven by implicit theories of 'dangerous world' and 'male sex drive is uncontrollable' were primarily motivated by violent and sadistic fantasies, those offenders with implicit theory of 'male sex drive is uncontrollable' were primarily driven by prior sexual fantasies. Finally, the offender group driven by the implicit theory of 'dangerous world' were primarily driven by resentment or anger towards women.

### *Forensic history*

Similarly to offenders' demographic characteristics, offenders' forensic history does not appear to discriminate between sexual murderers and rapists. These results are in line with Carter and Hollin's (2010) findings that the majority of these offenders have a criminal history. Their findings that non-serial sexual murderers were found to have less history of sexual assault in their review are in some ways supported by Milsom et al. (2003) and Oliver et al. (2007)'s findings that sexual murderers generally have less previous rape convictions. This is however contradicted by Grubin's (1994) findings

that sexual murderers have more previous convictions for sexual offending.

### 2.10.3 Applicability of findings to population of interest

Applicability has been defined as “*an assessment of whether the findings of a review can be applied in a particular context or population [and] can be considered in terms of individuals and their specific circumstances or can be extended to include populations and settings*” (Burford, Lewin, Welch, Rehfuess & Water, 2013, p. 1251).

In essence, therefore, the quality of reporting and the applicability of the findings are intertwined (Burford et al., 2013). In the case of this review, the applicability needs to take into account the varied nature of the focus of studies exploring sexual murder, most of which are concerned with disorder, clinical need or risk. Firstly, the quality of the studies included in the present systematic review was rated as ‘high’ for all studies, , however the researcher was unable to exclude studies based on their quality score due to the small amount of studies obtained. The applicability of the findings will therefore have been affected in terms of quality of studies assessed, and findings should be treated with caution. Secondly, the studies included in this review had variable sample sizes (n=26 to n=747), leading to difficulties in terms of weighting of the results obtained. Again, this should be kept in mind when attempting to generalize the results to a wider population. Thirdly, studies varied greatly on the outcomes measures used to differentiate sexual murderers from other sexual offenders. In addition, some of the outcome measures were not reported in terms of inter-rater agreement, reliability and validity, rendering comparison difficult. Similarly, comparison groups tended to be defined as ‘other offenders’, and were comprised of different types of offenders (e.g.

sexual offenders, sexual aggressives, sadists). Whereas a comparison between sexual murderers and other sexual offenders was possible, the results may have been skewed by an over-representation of non-homicidal sexual offenders (n=350 for sexual murderers, n=1133 for other sexual offenders). Finally, as discussed previously, a consensus is required on the terminology currently used in the field of sexual murder, as current research continues to use interchangeable terms such as sexual murder, sexual homicide, and homicidal sexual offender.

#### 2.10.4 Implications of the findings and limitations on practice

The limitations of this review must be taken into account when suggesting implications of the findings on clinical practice. Although the findings of this review indicate some qualitative and quantitative similarities and differences between sexual murderers and rapists, there is an evident lack of consensus on a number of characteristics and how to discriminate between both groups of offenders. This review has however been able to highlight a number of important themes, both in terms of previous typological approaches (e.g. sex, aggression/anger, power/control/sadism, emotional/mental state) and amongst the comparative literature based on offenders' characteristics (e.g. childhood abuse, substance misuse, personality, interpersonal relationships).

The clinical characteristics of importance highlighted in this review, for example personality disorder, could help clinicians determine necessary and helpful areas of assessment in order to aid formulation thus informing clinical practice. As indicated in Carter and Hollin's (2010) review, whereas this review has focused more directly on

male sexual offenders of adult victims, it may be of clinical interest to compare other types of sexual murderers (e.g. such as those targeting children), or offenders within different settings (e.g. prison vs. psychiatric hospital). Discriminating between these groups may enable better identification of criminogenic needs, thus informing the assessment, formulation and treatment of such offenders.

Whereas the findings of this review may not directly impact on treatment programmes, it may be suggested that group programmes could be targeted more directly towards particular criminogenic needs. As described above, different SOTPs are provided depending on the needs of the offender, thus targeting different criminogenic needs. Although criminogenic needs such as aggression, sexual deviance, inadequacy, impulsiveness, poor emotional control and entitlement are targeted both within the core/adapted SOTP and extended SOTP, others such as control and planning may not be as directly targeted. One may therefore suggest that individually tailored interventions such as those provided within secure psychiatric settings may be more appropriate. An example of such approach within the Prison Service is the development of the Healthy Sexual Functioning programme (HSF) which allows individually-provided behavioural modification targeting deviant sexual fantasies and arousal. A further example is the personality disorder strategy, whereby sex offenders with personality difficulties have access to psychologically informed planned environments (PIPE). These provide an alternative prison-based environment where offenders are able to address their criminogenic needs, as well as improve their psychological health and well-being. A review by Perkin, Hammond, Coles and Bishopp (1998) indicated that a combination of interventions provided by the Prison Service and secure mental health services would be best suited to highest risk sex offender. This is further supported by Evenden's (2008)

review which indicated that SOTP alone was insufficient for high risk offenders. Beech et al. (2005) thus suggest that other accredited programmes should be used in conjunction to SOTP to ensure a reduction in risk.

#### 2.10.5 Recommendations for future research

Whereas this review has uncovered some of the themes present across both groups of offenders, future research should focus on strengthening the validity of those findings due to the currently scarce amount of research comparing sexual murderers and rapists. In addition, it would be of clinical interest to investigate whether the themes highlighted in this review are reflected and targeted in current specialist treatment programmes for sexual offenders.

Whereas the validity of the characteristics are limited by the lack of consensus within the evidence base, more robust research and subsequent increased consensus would aid both the assessment, formulation and treatment of sexual murderers relative to rapists. The themes and characteristics highlighted in this review hopefully contribute to the wider knowledge base.



## **CHAPTER THREE**

### **Critique of a Psychometric**

### 3. CRITIQUE OF A PSYCHOMETRIC

#### 3.1 Introduction

*“Psychological tests...are tests of psychological constructs and are useful to the extent that the underlying theoretical construct and the tests used to measure them are valid”*  
(Thambirajah, 2005, p. 181).

Psychometric testing is used as an attempt to measure and estimate psychological constructs. Psychometric tests are standardized in terms of their administration, recording, and interpretation. As a result, the objectivity of the measure of underlying theoretical constructs is optimized (Thambirajah, 2005). Craig, Lindsay and Browne (2010) highlight the crucial need for psychometric tests not only to be standardized, but for this standardization to be normed within a sample that can provide a comparison group. Consequently, the individual's score upon a measure can be compared to the study population and judgments can be made and assessed against a mean and normal distribution. Gaining access to a large sample of offenders can however be problematic, for example in the field of sexual sadism, resulting in potential poor standardization. This may in part be due to the elusive nature of the concept of sexual sadism (Yates, Hucker & Kingston, 2008).

The psychopathology of sexual sadism has been described as difficult to define and measure due to the range of sexually deviant behaviours displayed. The concept of sexual sadism has evolved over the centuries. Originally derived from Alphonse Francois de Sade's name (Carroll, 2015), the term was first used by Krafft-Ebing (1886/1892) in reference to one's experience of sexual pleasure as a result of acts of cruelty on human beings or animals. Sexual sadism was later divided by Schrenck-Notzing (1895/1956) into an active subtype, namely sadism, and a passive subtype – or

the complete opposite, namely masochism (derived from Leopold Ritter von Sacher-Masoch) (Bullough & Bullough, 2013). As well as physical pain, sexual sadism incorporated the notion of psychological pain (Eulenberg, 1911). The link between sexual fantasy and sexual sadism has been identified throughout the decades, although the behaviour of engaging in sadistic fantasies is not limited to individuals who commit such crimes (Chan & Heide, 2009). More recently, definitions of sexual sadism have accentuated the importance of power and control as well as sexual fantasy as a critical feature of sadism (Yates et al., 2008).

The World Health Organization refers to sexual sadism as a clinical syndrome related to impairment of emotional attachment or love (paraphilia) (World Health Organization, 2016). The psychiatric diagnostic criteria for sexual sadism is provided in the DSM-V as the “(a) Over a period of at least 6 months, *recurrent and intense sexual arousal from the physical or psychological suffering of another person, as manifested by fantasies, urges or behaviours. (b) the individual has acted on these sexual urges with a nonconsenting person, or the sexual urges or fantasies cause clinically significant distress or impairment in social, occupational, or other important areas of functioning*” (American Psychiatric Association, 2013, p. 685). Sexual sadism is identified as a mental disorder that must be present for more than a period of 6 months, in which deviant urges have caused significant distress or impairment to this person in important areas of his life, such as work or social relationships (Chan & Heide, 2009). Whilst the definition is used widely, Marshall, Kennedy, Yates and Serran (2002) indicate its inadequacy in diagnosing those with sexual sadism. The definition is difficult to apply in practice, and as a result the concept of sexual sadism remains difficult to identify with confidence (Yates et al. 2008). Marshall and Kennedy (2003)

describe the main difficulty inherent to the identification of sexual sadism as the need for the diagnostician to ascertain subjectively the degree of satisfaction derived from the sadistic act, thus inferring sexual excitement based on the definition alone.

Consequently, their study outlines the poor reliability of sexual sadism as a diagnosis. Furthermore, definitional issues have stemmed from the intricacies in identifying the motivation behind sexual sadism, for example when leading to sexual murder. Marshall and Kennedy thus argue that the only agreed upon definition components are the link between sexual arousal and features of the victim's response or the offenders' behaviour.

### **3.2 The assessment of sexual sadism pre- Severe Sexual Sadism Scale**

As a result of the inconsistencies in defining sexual sadism, as well as the lack of clinical confidence in diagnosing sexual sadism, some authors have questioned the reliability of the diagnosis altogether (Nitschke et al., 2009). Studies exploring both the prevalence and the characteristics of sexual sadists have obtained widely differing results. It is therefore unsurprising that research has found sadists and non-sadistic offenders not to be distinguished accurately based on the existing criteria (Marshall, et al, 2002). Furthermore, Saleh, Grudzinskas, Bradford and Brodsky (2009) found the measure of sexual sadism to be inherently flawed, as sexual offenders tend not to be forthcoming and open about their arousal and fantasies, and often deny their sadistic tendencies (Marshall al., 2002b).

A study by Marshall et al. (2002a) attempted to explore the effectiveness of the diagnosis of sexual sadism used in federal prisons in Canada through comparing features of sadists and non-sadists. Their results identified non-sadists as displaying

more sadistic features than those with a confirmed diagnosis of sexual sadism. These results highlighted a lack of clinician agreement and inconsistency in the criteria used to diagnose sexual sadism. A follow-up study by Marshall et al. (2002b) demonstrated that experts agreed significantly more on crime scene behaviours than on diagnostic criteria of sexual sadism. Diagnostic agreement however remained very low (*kappa* 0.14).

Marshall and colleagues further requested a rating of the relevance of a list of diagnostic criteria. With these ratings as a basis, a seventeen-item list of behavioural indicators of sexual sadism was developed by Marshall and Hucker (2006), with items clustered into four groups of decreasing weightings, with the first five items deemed most relevant.

1. Offender is sexually aroused by sadistic acts
2. Offender exercises power/control/domination over victim
3. Offender humiliates or degrades the victim
4. Offender tortures victim or engages in acts of cruelty on victim.
5. Offender mutilates sexual parts of victim's body.
6. Offender has a history of choking consensual partners during sex.
7. Offender engages in gratuitous violence toward the victim.
8. Offender has a history of cruelty to other persons or animals.
9. Offender gratuitously wounds victim.
10. Offender attempts to, or succeeds in, strangling, choking, or otherwise asphyxiating the victim.
11. Offender keeps trophies (e.g. hair, underwear, ID) of victim
12. Offender keeps records (other than trophies) of offence.
13. Offender carefully preplans offence.
14. Offender mutilates nonsexual parts of victim's body

15. Offender engages in bondage with consensual partners during sex.
16. Victim is abducted or confined.
17. Evidence of ritualism in offence.

The scale was aimed to provide both a classification and dimensional system to allow for more consistent diagnosis of sexual sadism. Nitschke et al. (2009) identified that the psychometric properties of the above listed items however had not been explored, and their reliability thus remained unclear. Consequently, the Severe Sexual Sadism Scale (SSSS; Nitschke et al., 2009) is an attempt to build on Marshall and Hucker's (2006) sexual sadism criteria list, whilst testing empirically the psychometric properties of the sadism criteria identified by both Marshall and Hucker (2006) and Marshall et al. (2002a). In addition, Nitschke and colleagues incorporated more recent research on sadistic rapists demonstrating the importance of the criteria "*insertion of foreign object into the victim's bodily orifices*".

This critique of the Severe Sexual Sadism Scale shall provide an initial overview of the SSSS, before consecutively appraising its psychometric characteristics through exploring both the reliability and validity of the scale. Finally a discussion will conclude the critique of the scale by critically appraising the available evidence base.

### **3.3 Overview of the Severe Sexual Sadism Scale**

The Severe Sexual Sadism Scale (SSSS) was published in a paper titled "*A cumulative Scale of Severe Sexual Sadism*" by Nitschke et al. (2009). There is no manual provided alongside the SSSS, and clinicians therefore have to rely on the research paper itself to use the tool. It is an 11-criteria cumulative scale aimed to distinguish between destructive sadists and non-sadistic offenders and designed to

improve diagnostic accuracy of sexual sadism. The scale was developed as a dimensional assessment of severe sexual sadism in order to differentiate between sadistic and non-sadistic sexual offenders. Currently, there is no objective comparison of who is actually a sadist – most likely due to the rarity of such clinical presentation. The scale is formed of five core criteria originally identified by Marshall and Hucker (2006)'s sexual sadism criteria list: items 1 through 5 on the scale (Nitschke et al., 2009). Nitschke and colleagues further identified that 11 of the original 17 items conform to a cumulative scale. An offender can be classified as a sexual sadist if he fulfills at least three of the above criteria, and a total of at least four criteria of the 11-item scale. Coding of the criteria is completed based on clinical files by an experienced psychologist, and scoring is achieved dichotomously as either absent (0) or present (1) (Pfulgradt & Allen, 2013).

The 11 items are as follow:

1. Offender engages in gratuitous violence toward or wounding the victim.
2. Offender exercises power/control/domination over the victim.
3. Offender humiliates/or degrades the victim.
4. Offender is sexually aroused by the act.
5. Offender tortures the victim or engages in acts of cruelty to the victim.
6. Evidence of ritualism in offence.
7. Victim is abducted/or confined.
8. Insertion of object(s) into victim's bodily orifice(s).
9. Offender mutilates sexual parts of the victim's body.
10. Offender mutilates nonsexual parts of the victim's body.

11. Offender keeps trophies (e.g., hair, underwear, ID) of the victim or keeps records of the offence.

There are two notable differences between Marshall and Hucker's (2006) original subset and Nitschke et al.'s (2009) scale. Firstly, the first item "*offender is sexually aroused by sadistic acts*" was changed to "*Offender is sexually aroused by the act*", thus avoiding the logical fallacy of circular reasoning and preserving the scale's exploratory value (Pfulgradt & Allen, 2013). Secondly, diagnosis of sexual sadism requires meeting at least three of the core items. Given the literature is indicative of poor clinician agreement on criteria defining sexual sadists, it is worth noting that the SSSS items are all attributed to a crime scene behaviour, aside from item 4 ("*offender is sexually aroused by the act*") which can be attributed to an internal state (Mokros, Osterheider, Hucker, & Nitschke, 2011).

### **3.4 Psychometric properties of the Severe Sexual Sadism Scale**

As indicated above, psychometric tests have been developed in order to ensure the objective measurement of variables whilst ensuring standard administration, scoring and interpretation. Tredoux, Foster, Allan, Cohen and Wassenaar (2005) describe that a good psychometric measure should be based on a strong empirical background. Furthermore, psychometric tests should come alongside a manual enabling its user to explore the psychometric properties and test development. As highlighted by these authors, within the forensic field, the use of psychometric testing can have a significant impact on individuals, for example through influencing a court case. Consequently, psychometric testing should be as objective as possible. This can partly be achieved by ensuring the validity and reliability of a test (Parkinson, 2010). With regards to



diagnosing sexual sadism, Marshall et al. (2002b) highlight the implications of such a diagnosis for the offender, namely being labeled as high risk and consequently being moved to higher security and/or facing an extended sentence. Psychometric measurement thus has a duty to assess the individual accurately in order to ensure fair and adequate treatment.

### **3.5 Scaling characteristics**

The SSSS is not yet an established psychometric, likely due to the paucity of research within the field of sexual sadism and the difficulty in acquiring normative samples. Its reliability and validity thus remain at the infancy stage. A critical feature of the SSSS lies in the construction of the scale itself. The scaling analyses of the SSSS were carried out using item response theory (IRT), namely non-parametric Mokken scaling (Mokken 1971; 1997). This type of scaling was chosen for its probabilistic characteristics and its exploratory value, although this type of scaling normally requires large samples. Using Mokken scaling allows for the ascription of behaviours to underlying traits (Nitschke et al., 2009), and is a uni-dimensional scale in which items are ordered hierarchically and assessed for their potential in measuring a single underlying latent concept. Nitschke and colleagues found their eleven-item scale to be highly reliable ( $r_{tt} = 0.93$ )<sup>2</sup>. A replication of the SSSS was carried out by Mokros, Schilling, Eher and Nitschke (2012) using a sample of 105 sexual offenders. Confirmatory factor analysis confirmed the presence of a one-dimensional scale. Due to findings indicating some negative correlations between items, a one-parameter logistic (Rasch) model was tested as opposed to the non-parametric IRT (Mokken scaling). This model not only retained its cumulative scale properties, but additionally indicated the use of total scale score as indicative of the underlying trait. However, despite

confirming the reliability of the scale, their findings indicated lesser specificity and sensitivity ( $r_{tt} = 0.86$ ).

In addition to the use of Mokken scaling, Nitschke et al. (2009) tested whether the SSSS additionally was of Guttman type. A Guttman scale (Guttman, 1950) is a cumulative scale that increases in specificity, therefore allowing for the progressive investigation of a one-dimensional concept on a continuum. In other words, the answer given to a specific item predicts all answers given to all previous items in the series (Nitschke et al., 2009). One may therefore say that the Mokken scale is a non-parametric probabilistic version of a Guttman scale. Guttman (1950) reported that a scale could be identified to be of Guttman type if the coefficient of reproducibility was greater than .90. Nitschke and colleagues found their eleven-item scale to be a strong scale ( $H = .83$ ) of the Guttman type (coefficient of reproducibility  $Rep = .97$ ). Despite some identified flaws, the notion of a cumulative scale is therefore interesting.

### **3.6 Reliability**

#### **3.6.1 Internal consistency**

Internal consistency refers to the extent to which each test items measure the same construct. Typically, internal consistency is measured by exploring the correlations between all items of the test, and is expressed using Cronbach's alpha (Cronbach, 1951), a measure of pairwise correlations between test items (Bland & Altman, 1997). Results from a study by Mokros et al. (2011) found Cronbach's alpha for the SSSS to be at a good level of  $\alpha = .88$ . These results were found in a normative sample of 100 male forensic patients treated in a high security forensic facility in Germany since 1990. A subsequent study conducted by Mokros et al. (2012) on the

SSSS demonstrated that the alpha coefficient was at an acceptable level at  $\alpha = .75$ , thus satisfactorily demonstrating that the SSSS measures a reliable uni-dimensional construct. This obtained  $\alpha$  is however variable across samples. Due to the SSSS being of the Guttman type, Mokros and colleagues further support these results by reporting a Guttman's lambda coefficient  $\lambda_2 = .78$ , thus less likely to be an underestimate of the internal consistency and consequently ensuring no underestimate of reliability (Reid, 2008). These results were found in a normative sample of 105 adult male sexual offenders in the Austrian prison service. As a result of the above being replicated in two different countries, there is some evidence of cross-cultural validation of the SSSS. Neither Nitschke et al. (2009) or Mokros et al. (2011) reported ethnicity or socioeconomic class of their sample, however both groups found similar age average (36 and 33 respectively).

### 3.6.2 Test-retest reliability

Test-retest reliability is measured by repeating the administration of the measure under the same conditions to the same participants at different points in time. Poor test-retest reliability is evidenced by variability. Due to the SSSS being a file-based psychometric assessment, and as a result of information being historic, it unlikely any variables would have changed. As a result of the static nature of sadism, an alternative method would therefore be to use inter-rater reliability as a substitute for test re-test, as discussed below.

### 3.6.3 Inter-rater reliability

The inter-rater reliability refers to the level of concordance amongst raters of a same measure. Agreement amongst raters is important as it ensures the data collected is an accurate representation of the constructs measured (McHugh, 2012). Whereas inter-rater reliability can be measured as percentage agreement, such measurement does not account for chance agreement, or the likelihood of raters guessing. Cohen's kappa coefficient (Cohen, 1960) accounts for this level of potential uncertainty, and is consequently considered a robust measure of inter-rater agreement for categorical variables. Similarly to all correlations, Cohen's kappa ranges from -1 to +1.

In their sample of 100 male sexual offenders from a German high-security forensic hospital, Nitschke et al. (2009) reported very high inter-rater reliability  $\kappa = .86$  (range: .65 – 1.00), with the lowest although still substantial kappa value identified for the last item of the scale "*offender keeps trophies of the victim or keeps records of the offence*" ( $\kappa = .65$ ). Mokros et al. (2012) replicated the use of the scale on a subset of six cases from a sample of 105 adult sexual offender males within an Austrian Prison Service and found a lower inter-rater agreement of  $\kappa = .58$  (range: .40 - .77), considered to be moderate (Landis and Koch, 1977) or fair to good (Fleiss, 1971).

Mokros et al. (2012) explored inter-rater agreement using tetrachoric correlations, and found a mean tetrachoric correlation between the eleven items was .41. Their findings indicated that most of the SSSS items were positively correlated, with the exception of item 8 "*Offender mutilates nonsexual parts of the victim's body*" and item 5 "*offender mutilates sexual parts of the victim's body*", possibly explained by their low occurrence.

### **3.7 Validity**

#### **3.7.1 Face validity**

Face validity refers to the extent to which a test is seen to measure what it intends to measure. Consequently, a measure may not have good validity however may achieve good face validity. Face validity of the SSSS can be partly derived from an earlier study by Marshall et al. (2002) in which fourteen raters identified five core features as important or crucial: 1) control, domination or power, 2) humiliation or degradation, 3) cruelty or torture, 4) deviant sexual arousal, and 5) sexual mutilation of victims. Level of agreement on these features was 80% or better, however only yielded a kappa coefficient of .14 thus suggesting a low index of agreement. In order to improve face validity through decreasing ambiguity, Nitschke et al. (2009) reworded the item from the original seventeen item scale, “*offender is sexually aroused by sadistic acts*” to “*offender is sexually aroused by the act*”.

#### **3.7.2 Concurrent validity**

Concurrent validity looks at the extent to which the measure correlates with previously developed and validated measures. When developing a new measure, therefore, this measure should be compared against existing measures to establish the extent to which they measure the same construct. Coaley (2009) however argued that establishing concurrent validity can prove problematic when establishing a new measure, as existing measures may have unreliable validity. As a result, concurrent validity is generally evaluated alongside other measures of validity.

Due to the measurement of sexual sadism being scarce and the resulting difficulties in establishing concurrent validity, attempts have been made to compare the

measure of sexual sadism to psychopathy. Despite finding both constructs to be distinct, Mokros et al. (2011) found the sum of the SSSS to significantly correlate ( $r = 0.29$ ) with psychopathy scores using the Psychopathy Checklist-Revised (Hare, 2003).

### 3.7.3 Construct validity

Construct validity looks at the extent to which the scale actually measures the constructs it aims to measure. Consequently construct validity defines to what extent inferences can be made from the scale and its construct's operationalization. As described by Cronbach and Meehl (1950), "*construct validity must be investigated whenever no criterion or universe of content is accepted as entirely adequate to define the quality to be measured*" (p. 282).

Efforts have been made by Nitschke et al. (2009) to render items within the SSSS as transparent and unambiguous as possible, thus reducing misunderstanding and enabling the items to be easily identifiable as either present or absent. The five items which are deemed somewhat more ambiguous – namely "*humiliation or degradation of the victim*", "*offender tortures or engages in acts of cruelty on the victim*", "*offender gratuitously wounds the victim*", and "*evidence of ritualism in offence*" – have been defined in detail within the paper, thus allowing clinicians to ensure accurate understanding of the items.

### 3.7.4 Content validity

Content validity assesses the extent to which all aspects of a construct are explored within a measure. This is addressed by having an adequate number of items to explore the entirety of the domain of a construct, and therefore attempting to include all

aspects of a construct in order to accurately represent its research domain (Polit & Beck, 2006). As a result, content validity “*concerns the degree to which a sample of items, taken together, constitute an adequate operational definition of a construct*” (Polit & Beck, 2006, p. 490). Given the difficulties highlighted above between the operational definition of sexual sadism and its application to practice, it is important for the SSSS to maintain a strong evidence base within which to root its scale items.

As well as placing the seventeen-item scale under statistical scrutiny, Nitschke et al. (2009) attempted to improve content validity through addition of the item “*insertion of foreign objects into the victim’s bodily orifices*”, an item found to be indicative of sexual sadism within a subsample of rapists (Knight, Warren, Reboussin, & Soley, 1998). Given the paucity of research within the field of sexual sadism, however, it is plausible that other items may not yet have been explored and thus benefit from being added in the future.

### 3.7.5 Predictive validity

Predictive validity refers to the effectiveness of a test or measure to predict a scores or performance on a particular measure (Anastasi, 1988). As demonstrated throughout the literature, past offending behaviour is a good predictor of future reoffending (Kurlychek, Brame & Brushway, 2006). Sexual deviance has been identified as the single primary risk factor for future sexual reoffending (Hanson & Morton-Bourgon, 2005) and the rate of relapse in sadists was found to be ten percent higher than in the general sexual offender population (Berner, Berger & Hill, 2003). Pfulgradt and Allen (2013) indicate the difficulties pertaining to the diagnosis of sexual sadism, and point to the poor predictive validity and unreliability of the diagnosis. It is

worth noting that Nietschke et al. (2009) did not set out to develop the SSSS as a predictive measure, however do report the SSSS as improving diagnostic accuracy. Furthermore, Mokros et al. (2011) report good criterion validity when compared with the DSM-IV-TR diagnosis of sexual sadism. It is worth noting that although the area under the curve (AUC) was not used by the authors against a formal diagnosis to see whether the SSSS predicted the diagnostic classification, the primary question remains whether or not the SSSS has predictive validity and is therefore useful in the diagnosis of sexual sadism.

As well as using the SSSS, sexual sadism can be diagnosed using the Diagnostic and Statistical Manual of Mental Disorders (DSM, American Psychiatric Association, 1980; 1987; 2000; 2013). A study by Kingston, Seto, Firestone and Bradford (2010) examined the indicators of sexual sadism in relation to risk of recidivism, and compared assessment measures including the DSM (version III and III-R), offence characteristics, phallometric assessment results, and the Sex Offender Risk Appraisal Guide. Their study found the psychiatric diagnosis of sexual sadism to be unrelated to risk of recidivism, however found good predictive validity of behavioural indicators of sexual sadism, thus suggesting the need for further work into the DSM criteria for sexual sadism. These results are explained by sexual sadism being a behaviour rather than a distinct psychopathology.

### **3.8 Normative samples**

Normative samples allow for comparison between the sample group and the 'normal' population. This 'normal' population is thus formed of a peer group sample



representative of individuals who may take a particular test, and provides a source of reference for interpreting and evaluating individual test scores (O'Connor, 1990). The SSSS does not appear to have a 'reference' sample as such, however both the studies by Nitschke et al. (2009) and Mokros et al. (2012) use comparison groups.

Nitschke and colleagues differentiated between primary sexual sadists – or those diagnosed, secondary sexual sadists – undiagnosed, and nonsadistic sex offenders – randomly sampled from a subgroup of nonsadistic sex offenders. Those undiagnosed sadists were subsequently found to meet the criteria for sexual sadism through clinical judgment and consensus diagnosis. The use of these normative samples enabled the differentiation of severe sadistic offenders and nonsadistic sexual offenders using a cut-off score of four. It is however worth noting that this sample was taken from a specific population of high-security psychiatric forensic patients in Germany. Mokros and colleagues replicated the study using a sample of male sexual offenders from federal evaluation center in the Austrian prison service. Their results indicated that a cut-off of four may be too low leading to a high number (42%) of false positives, and suggested a cut-off of 7 led to more acceptable specificity (90%) and a selection ratio above 50%.

Due to the specific nature of samples within the field of sexual sadism, it is unsurprising that there are no pools of normative sample data to compare the outcomes of the SSSS. It is therefore imperative that future research address these difficulties through replicating studies using the SSSS and other diagnostic tools. Furthermore, both the above studies were conducted in German-speaking countries, and it is therefore imperative future replications focus on different cultures and languages, as well as overall larger samples (Mokros et al., 2012).

### **3.9 Discussion**

This critique has provided an overview of the literature on sexual sadism in an attempt to evaluate the assessment of sexual sadism, and more specifically to assess and critique the Severe Sexual Sadism Scale. It has endeavored to demonstrate that sexual sadism can and should be explored in a dimensional as opposed to a categorical manner (Marshall & Hucker, 2006). This is supported by Nitschke et al. (2009)'s concluding comments that sexual sadism should be viewed along a continuum of sadistic behaviours, from accepted sadistic tendencies to those incarcerated following severe and harmful sexual sadism. Whereas the DSM-V (American Psychiatric Association, 2013) continues to treat diagnoses as specific categories, it has made a definite move towards diagnoses as a spectrum or continuum. This is consistent with Nitschke and colleagues' recommendations of improving the DSM criteria of sexual sadism towards a more dimensional view.

The SSSS has been described as a useful scale to use in conjunction with other diagnostic tools (Mokros et al., 2012). As highlighted in the literature, despite having been explored for decades, the study of sexual sadism remains scarce and as a result more research is needed in order to improve the evidence base. For example, the SSSS has only been applied in German-speaking countries, and therefore would benefit from being replicated more widely across different languages and cultures. Furthermore, as for most studies of sexual sadism, the samples were relatively small (100 construction sample, 105 testing sample), thus limiting the possibility to generalize the results.

It is clear that the SSSS fits well both within the applied field and the evidence base, demonstrated through its use of previously elicited criteria within its core structure. The SSSS however has not yet demonstrated predictive validity, thus leaving one able to question whether or not an identification of sexual sadism using the SSSS

would be predictive of sexual or violent reoffending upon release (Mokros et al., 2012). Given the impact of such diagnosis on an individual, it is therefore imperative that future research explore the impact of a diagnosis of sexual sadism on future risk. As can be seen in the partly established links between sexual sadism and psychopathy, Nitschke et al. (2009) point to the SSSS lending itself to correlative analysis. Future research should therefore focus on exploring further the links between personality disorder, psychopathy and sexual sadism, in the hope to uncover and understand possible underlying personality structures.

In conclusion, the SSSS has shown to be a useful tool in the developing field of sexual sadism, however will benefit from being used in conjunction with other more established assessments, for example within the field of sexual offending. Although initial research has demonstrated some of the strengths and weaknesses of the scale, more research is needed to explore both the reliability and validity of the SSSS, as well as further replication studies using different normative data. As suggested by the authors of the SSSS, future research should continue to aim for a dimensional exploration of sexual sadism in order to enable a continuum rather than categorical perspective on sexual offending.

## **CHAPTER FOUR**

### **Empirical Research Study**

## **ABSTRACT**

There is a significant and longstanding history of researchers attempting to classify sexual offenders, however the versatility of criminal behaviour renders this process complicated. This study aimed to explore the development of a dimensional model that allows for discrimination within sexual murderers, as well as between sexual murderers and rapists, in order to develop an explanatory framework for the understanding of sexual homicide. It explored individual differences using multi-dimensional scalogram analysis, or MSA. The results demonstrated that it is possible to discriminate both between sexual murderers and rapists and within sexual murderers alone using dimensions of sexual offending along a continuum of aggression, planning, control and sexual deviation. These results demonstrate that there are underlying structures common to both sets of offenders, and thus quantitative and qualitative similarities. It is hoped that the dimensions uncovered may serve as the building blocks to the dimensions of sexual offending, and thus as the foundation for future research.

## 4. EMPIRICAL RESEARCH STUDY

### 4.1 What is offender profiling?

*“In some ways, [profiling] is really still as much an art as a science”*  
(Schlossberg, 2004, cited in Winderman, 2004)

Offender profiling is often talked about throughout the media (Canter, 2000; Dowden et al., 2007) resulting in a gross discrepancy between the general population’s expectations of profiling and its genuine capabilities (Kocsis, 1999). The public’s perception of profiling has been guided by the popular criminal literature and televised shows (Scherer & Jarvis, 2014), such as *The silence of the lambs* and *Sherlock Holmes*. Despite being fictional works, these reflect an initial approach to criminal profiling based on expert deduction. Canter (2000) suggests works such as these led to the initial model of expert deduction, in which crimes were examined by identifying prominent features of both the crime itself and the offender.

A number of definitions of profiling exist throughout the literature (Canter, 1995; Douglas & Burgess, 1986; Geberth, 1996; Turvey, 1999 etc.). Generally, these include the concept of inferring information (for example, characteristics of an offender) for the purpose of discriminating and defining a criminal profile (Turvey, 2008). Due to their heterogeneity, offenders differ in their criminal actions. It is suggested that these differences may correlate with overtly observable actions, and as such can be submitted to empirical scrutiny (Canter & Heritage, 1990). Most recently, criminal profiling has been described as designating *“a process by which evidence, in particular that found at the crime scene, is analyzed with a view to determining probable offender characteristics. The overall purpose is to identify an unknown offender’s significant personality and demographic characteristics through an analysis of their crimes”*

(Chifflet, 2015, p. 238). Despite all encompassing the above features, a number of terms are used throughout the literature to refer to criminal profiling. These include “profiling”, “offender profiling”, “psychological profiling”, “criminal personality profiling” (Canter, 2000, p. 3) and “criminal investigative analysis” (Scherer & Jarvis, 2014). Whereas previous attempts at profiling offending behaviour resulted from clinical judgment (Canter, 2000), more recent studies have increasingly become statistical in nature. Dowden et al. (2007) identified a rapid growth in research in the last thirty years, consequently improving the field’s credibility as a scientific and empirical method. Nonetheless, despite some key studies (e.g. Canter, 2000), the processes underlying profiling remain to be formally identified and explained.

#### **4.2 Approaches to offender profiling**

Early approaches to offender profiling emerged from mythic novel-based investigative fantasy (e.g. Sherlock Holmes), the work of a number of scientists (e.g. Dr Bond’s profile of Jack the Ripper and Walter Langer’s psychological profile of Hitler) and investigative attempts to identify elusive perpetrators of crime (e.g. the mad bomber in the 1950s) (Alison, Goodwill, Almond, van der Heuvel & Winter, 2010). These subsequently developed to more empirically and theoretically grounded endeavors to identify and predict an offender’s characteristics (Vettor, 2011). Such a move in the literature has led to the emergence of different approaches and schools of thought. To date, three main models, or schools of thought, can be identified throughout the literature (Alison et al., 2010). These consist of the criminal investigative approach, also divisible into the pragmatic and theory-led approaches; the clinical practitioner approach, and scientific statistical approach (Muller, 2010). Whereas each approach is

in some ways independent, all have emerged from practical experience, scientific findings and investigative experience (Alison et al., 2010) and aim to predict an offender's personal characteristics (Vettor, 2011).

#### 4.2.1 Criminal investigative approach

Pragmatic approaches to profiling investigations emerged from the early work of the Federal Bureau of Investigation (FBI) in the 1970s, and focused on identifying and interpreting both the offender's behaviour itself and the interaction between offender and victim during the criminal action (Vettor, 2011). Such work can be seen in the early typologies developed by Ressler et al. (1986) for sexual murderers, Holmes and Holmes (1998) on serial murderers, and Knight and Prentky (1990)'s investigation of sexual offenders' motives. These typologies laid the groundwork for the serial murder approach to crime-scene investigation. Although useful and unprecedented at the time, the above typologies were developed based solely on investigators' intuition and experience rather than statistical findings or theoretical background (Alison et al., 2010). As a result, the findings have been found by many to be flawed in terms of validity (Kocsis, Irwin, & Hayes, 1998) and reliability (Canter & Wentink, 2004). Subsequent to the pragmatic approach, efforts were made to address the criticism of the lack of theoretical underpinning by submitting new proposed models to peer-reviewed journals to improve scientific validity and acceptance (Canter, 2000; Canter & Heritage 1990). This theory-led approach to offender profiling focused mostly on offenders' behaviours and motivations. Alison et al. (2010) argue that the latter approach demonstrates an attempt by clinicians, academics, law enforcement and FBI profilers to integrate investigative approaches with theoretical and statistical knowledge. Whereas



this enabled researchers to identify a number of potential motivations for sexual offending (e.g. anger, power, sadism, control, intimacy), these remain difficult concepts to define and do not form distinct categories of offenders (Vettor, 2011).

#### 4.2.2 Clinical practitioner approach

Similarly to the criminal investigative approach, the clinical practitioner approach relies heavily on the expertise and knowledge of the profiler (Alison et al., 2010). Consequently, this requires clinical judgment (Vettor, 2011) and an individually tailored approach. The steps necessary, or recommended principles, to the clinical approach are described by Copson, Badcock, Boon and Britton (1997): firstly, the investigative advice should be custom-made to avoid stereotyping the offender; secondly, the advice should be interactive – such that it is adapted to the investigator’s knowledge or understanding of psychological concepts relating to the crime; and thirdly, the advice should be reflexive so that the dynamics between different elements of the investigation are recognized as affecting each other. Although this step-by-step guide is an attempt to make implicit processes explicit, and systematize the process (Copson et al., 1997), Vettor (2010) argues this remains dependent on clinician-derived inferences.

More recently, law enforcement agencies have shifted from ‘offender profiling’ to the use of Behavioural Investigative Advice (BIA). This approach provides a combination of clinician experience, theoretical underpinnings, research, consultation and use of existing databases (Gregory, 2009; Rainbow, 2011), thus resulting in more evidence-informed practice.

#### 4.2.3 Scientific statistical approach

The third approach to offender profiling is contingent on statistical methodology. Pioneered by Professor David Canter, this method of investigation differs from previously developed approaches in that it bases its conclusions on offenders already apprehended as opposed to those being investigated (Alison et al., 2010; Canter, 2011). The crime scene information is inputted into multivariate analyses in order to infer offender characteristics. This approach allows for investigations to step away from simple dichotomous classification of offenders, and to investigate sexual offending along a continuum rather than categorically (Salfati & Taylor, 2006). The focus of this method on already apprehended offenders may have result in a biased sample.

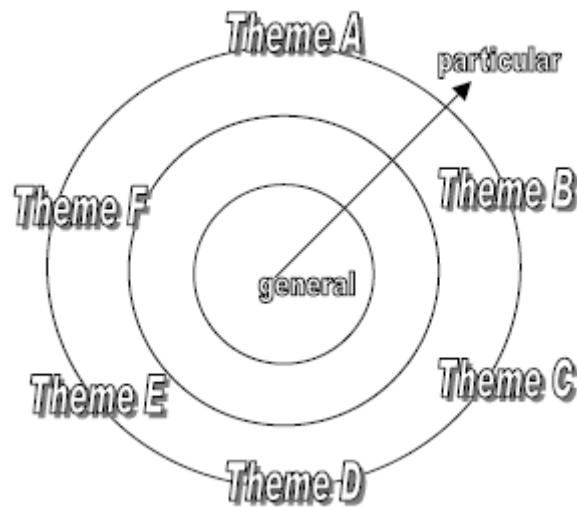
#### **4.3 Profiling and differentiation (types vs. dimensions)**

As described briefly above, there is a significant and longstanding history of researchers attempting to classify sexual offenders using various processes. These attempts have been conducted for both rapists (Gebhard et al., 1965; Groth et al., 1977; Guttmacher & Weihofen, 1952; Kopp, 1962; Prentky & Knight, 1985 and Rada, 1978) and sexual murderers (Beauregard & Proulx, 2002; Beech et al., 2005; Holmes & Holmes, 1998; Ressler et al., 1986; Revitch & Schlesinger, 1989). These have for example included comparing offenders based on crime committed (e.g. rape vs. sexual murder), behaviour at the crime scene (e.g. organized vs. disorganized), and psychological characteristics of sex offenders (e.g. implicit theories), but to name a few. Ultimately, a number of classification systems such as typologies were developed throughout the literature. However, these have been criticized as it has been suggested that sexual offending occurs along a continuum rather than categorically (Salfati &

Taylor, 2006). It is however possible that the idea of a single continuum is in itself also an over-simplification, since there are clearly multiple dimensions of sexual offending. Furthermore, offenders have been found to be a generally versatile group, and sexual offenders in particular have been identified by many as a heterogeneous group (Allam, Middleton & Browne, 1997; Saleh & Guidry, 2003; Sample & Bray, 2006). Consequently, Canter (2000) suggested the importance of comparing criminal behaviour (for example, variations in sex, aggression and other salient behaviour) rather than between crimes types (for example, rape vs. sexual murder).

The versatility of criminal behaviour is rendering profiling complicated. Canter (2000) identified that one can explore psychological differences between crimes. These can be organized in a linear hierarchy, which, whilst it increases in specificity, represents a continuum of variation. Namely, whereas broader considerations may question whether individuals who commit crimes differ from those who do not, more specific considerations examine sub-sets of features pertinent to the crime itself (for example, type of weapon used) (Canter, 2000). In an attempt to further explore differentiation within offender profiling, Canter reported that criminal profiling can be explained as follows:

Figure 2: Radex as applied to the actions of criminals (p. 11, Canter, 2000)



The above diagram (Figure 2), referred to as a ‘radex’ (Guttman, 1954), represents a circular arrangement of dimensions in two-dimensional space. A well-known example of this is Leary’s (1957) interpersonal circle, in which personality is represented in a two-dimensional circumplex mapping the axes of power and love (Acton & Revelle, 2002). Canter and Heritage (1990) defined the radex as “*the overall combination of the frequencies and the radial elements*” (p. 203). Whereas criminal behaviour located in the center of the radex represents general criminal behaviour commonly seen amongst those committing crimes, criminal behaviour is seen to increase in specificity as it moves away from the core of the radex. Core features therefore would be less useful at differentiating offenders, and consequently less useful within offender profiling. A second feature of this diagram is the presence of thematic facets, representing conceptual qualities of the offence. These radiate around the core of the radex, and may differ between offenders.

Canter and Heritage (1990) summarized the variety of actions undertaken by the offender, as well as the offender’s relationship to the victim, as identified by earlier typologies. These form a fivefold framework of potential combinations of co-

occurrences or distinguishing actions, namely forms of the following five elements of sexual offending behaviours 1) sexuality 2) violence and aggression 3) impersonal sexual gratification 4) criminality and 5) interpersonal intimacy. The above therefore represents an empirical approach to the data based on the geometric organization of the underlying features.

Multi-dimensional approaches to criminal profiling represent a set of complex structures not widely understood, and software is not readily available. As a result, the use of this technique within research remains scarce. Whereas previous research has focused on identifying independent themes or dimensions to classify offenders into categorical types (e.g. Beauregard & Proulx, 2007), the use of a radex such as that above allows for an overlap between types and thus a complex inter-relating multi-dimensional approach to criminal profiling.

#### **4.4 Rape and sexual homicide: behaviours and motives**

As identified previously, existing typologies have been based either on examining motives and offender-victim relationships (e.g. Groth et al., 1977; Knight & Prentky 1990) or crime-scene behaviours aiding investigative strategies (e.g. Holmes & Holmes, 1998; Ressler et al., 1986). Despite their differences, these typologies have all explored the common themes of violence/anger/aggression, sex and intimacy, and power/control within the offending context. Although sexual offending, and more specifically sexual murder, is evidently composed of multiple complex interacting factors, the literature has mostly investigated simple motivational explanations. It is therefore essential to review the themes identified throughout the literature in order to

adequately explore the multi-faceted motivational underpinning structure of sexual offending.

#### 4.4.1 Anger, aggression and violence

For decades, rape and sexual murder have been researched as individual distinct crimes (Salfati & Taylor, 2006). While some scholars argue that sexual murder is merely at the extreme violent end of the sexual offending continuum (Oliver et al., 2007), others suggest they may also have distinct components specific to rape or sexual murder (Schlesinger, 2003). More recently, the evidence-base has begun shifting its focus, from a legally driven viewpoint to investigating psychologically driven variations in crime-scene actions. Anger has always been seen as an important factor in sexual aggression (Myers et al., 2006), and has been emphasized as, amongst other factors such as sex and power, key to the act of rape (Groth et al., 1977). Given the complexity of anger as a concept, it would however be reductive to assume that anger alone provides the motivational sub-structure for either rape or sexual murder.

Anger is the primary emotional response to aversive events, and refers to an internal state, “*a strong feeling of annoyance, displeasure, or hostility*” (Oxford Dictionaries, 2016). Myers et al. (2006) suggest that anger may have been portrayed as a cause of sexual murder as opposed to an emotion correlated with sexual murderers and general offenders. This may in part be due to anger being the emotional mechanism that underlies a range of negative thoughts and has a strong association to aggression (e.g. Dollard, Doob, Miller, Mowrer and Sears’s 1939 frustration-aggression hypothesis) and frustration (Berkowitz, 1989). Aggression and violence refer to an external behaviour resulting from an internal state, defined consecutively as “*feelings of anger or antipathy*

*resulting in hostile or violent behaviour” and “behaviour involving physical force intended to hurt, damage or kill someone or something” (Oxford Dictionaries, 2016).*

Sexual assaults are varied in nature, as noted in the definitional difficulties of sexual murder. Bishopp (2003) suggests that differing types of sexual assaults should be explored dimensionally along a continuum of differing degrees of aggression and sexual variation. Instrumental and expressive violence are one such theoretical variation observed throughout the sexual offending literature. As defined by Kocsis (2008), instrumental violence results from an offender’s goal directedness, rather than being emotionally grounded. The offence is consequently aimed at personal gratification, with the victim as an object and a means of obtaining satisfaction. On the contrary, expressive violence is grounded in the offender’s wish for revenge or feelings of anger, and the victim thus tends to be known to the offender (Kocsis, 2008). The distinction between expressive and instrumental violence may however be just another simplistic way of suggesting that behaviour can be emotionally driven, such as Knight and Prentky’s (1990) ‘pervasively angry’ rapist, or goal directed and thus consistent with evolutionary perspectives (Eisner, 2009).

#### 4.4.2 Power, control, and dominance

Similarly to anger, aggression and violence, power and control as underlying motives for sexual offending are evident throughout the literature. Early typologies such as Groth et al. (1977) identified these as the motivation for sexual assault. Furthermore, the recurrent presence of the theme of sadism when researching the sexual murder literature points to the importance of particular expressions of violence, such as gratuitous violence, torture or mutilation, object insertion, and humiliation (Nitschke et

al., 2009). Sadism however presents with some conceptual difficulties, and it is difficult to make clear distinctions between sadism and motives of power, control, and dominance.

Power and control are essential to the commission of a sexual offence (Bishopp, 2003). Whereas power, control and dominance may be complex concepts, their particular expressions as behaviours are at times easily observable. These may include behaviours such as binding, strangling or mutilating, but may also include more sexually laden behaviours such as object insertion. Marshall (2005) goes as far as stating that it is argued by many that all rapes are characterized by power and control. Power and control have been linked to a particular type of rapists, namely sadists. These offenders were identified by Groth et al. (1977) as using power purely for the self-rewarding act of dominating others. The complexity of the concept of power renders the measure of its construct particularly difficult, however Bishopp (2003) argues it may act as a principal motivator for sadistic aggression.

Although power may define sadism, it is not exclusive to it (Bishopp, 2003). Consequently, one has to additionally consider other components of the offence as potentially responsible for visible power or control-driven behaviours. For example, being intoxicated with alcohol has been shown to increase power thoughts (Kalin, Kahn & McClelland, 1965) thus leading to more observable cruelty. Furthermore, despite its observable nature, it is difficult to distinguish from power necessary to control the victim from other forms of power such as sadism or dominance (Bishopp, 2003). For example, Hazelwood and Douglas (1980) indicated that power may be used to keep the victim quiet, thus playing an instrumental role in the commission of the offence.

Distinguishing power and control from other motivators is therefore complicated, as it is



intermingled with anger, sex, and possibly many other motivators. An example of this is explained by Bishopp (2003), who argues that a victim may be restrained through the use of control, thereby achieving power through the use of instrumental force.

Furthermore, Myers et al. (2006) argue that although the primary motivation may be one of power and control, there exists a secondary sexual gratification motivation.

Although other perspectives have been proposed, such as Thornhill and Palmer's (2000) suggestion that the use of power and control in rape is evolutionary in that it cheats the mating process by allowing the offender to achieve his goals with minimal investment, such explanations lack in the presence of any sexual motivation or rationale for choice of victim (Myers et al., 2006). Wilson, Dietrich and Clark (2003) further argue that such evolutionary theory is indeed a naturalistic fallacy, and thus inherently flawed in that it fails to take into account the ethical properties of rape. The literature has evidenced that sex can be a motivator (e.g. Stefanska et al., 2015) and that anger may be reactive or associated with vengeance (Beech & Ward, 2004) whilst some offenders seek intimacy from sexual assaults (Marshall, 1989). In conclusion therefore, power, control and dominance are not alone sufficient to explain the full range of motivations for sexual offences (Bishopp, 2003).

#### 4.4.3 Sex, Intimacy and pseudo-intimacy

Concepts such as anger and power may be considered quite crude, rudimentary motivators. Marshall (1992) argues that the concept of intimacy, or desire for intimacy, is a construct of a more complex nature. Human beings have the inherent adaptive strategy to develop affiliation to others. This natural process is a driving instinctual mechanism and a pre-requisite for the survival of species (Bishopp, 2003). As a result,

Reis, Collins and Berscheid (2000) argue that all human behaviours occur in the context of our relationship both with and to others. Within sexual offending, it is at times difficult to distinguish between intimacy and sex. Whereas acts committed by the offender are inherently sexual in nature, it can be unclear whether they are driven by a sexual motivation. For example, offenders can become sexually aroused as a result of the act of rape itself, or by an attempted normalized intercourse (Bishopp, 2003).

The search, need or desire for intimacy has been identified by many as a potential motivator for sexual offending (e.g. Bishopp, 2003; Ward, Hudson & Marshall, 1996). Sexual offenders have been identified as lacking in areas of interpersonal skill, for example conversational skills and relationship skills (Barlow, 1974; Emmers-Sommer et al., 2004), assertiveness deficits (Edwards, 1972) and emotional inadequacy with adults (Fisher & Howell, 1970). The presence of intimacy behaviours within the offence may thus represent either an attempt at intimacy and normalized sexual behaviour on the part of the offender, or a distortion of victim consent derived from interpersonal skills deficits. As a result of the complexity of the concept, Bishopp (2003) argues it is therefore necessary to consider intimacy in the context of others behavioural features. For example, intimate verbal comments and physical affection coupled with a lack of aggressive behaviour may indicate an offender's desire for intimacy. On the contrary, intimacy coupled with high levels of aggression may indicate a wish for power and control, and possibly the presence of sadistic features.

#### 4.4.4 Behaviours and motives: Critique

There is evidently a lot of debate as to the motives for sexual offending along its continuum. However, irrespective of motivation and/or outcome, it is important to keep in mind that sex is in this case the chosen expressive method, whether it acts as a primary or secondary motivator. As a result of the ongoing ambiguity and lack of consensus amongst the literature exploring constructs relevant to sexual offending, it remains difficult to discriminate both within and between groups of sexual offenders such as sexual murderers and rapists.

As previously outlined, there are crucial semantic difficulties resulting from the lack of agreed definition of sexual murder as well as its lack of recognition as a formal crime within the criminal justice system. As a consequence, it remains difficult to examine the literature systematically as it is often unclear whether comparisons are indeed comparing similar offenders. Furthermore, although the available literature does tend to identify similar relevant concepts, the way in which they are described or used varies significantly. For example, whereas the profiling literature's focus tends to be on behaviours alone, the clinical literature often attempts to describe and link behaviours, motives and disorders. To date, there does not appear to be literature attempting to synthesize both the clinical and profiling literature.

#### **4.5 Methodological considerations**

*“The movement towards more multi-dimensional explanations is in many ways a paradigm shift from simple linear ideas of cause and effect”*

(Bishopp, 2003, p. 102)

Processes of interest to psychologists tend not to be directly observable (Ferguson, Kerrin & Patterson, 1997). As highlighted by Bishopp (2003), psychological

quantitative notions tend to be vague, for example agree, neutral, disagree.

Measurement, however, is an essential component of scientific research. This creates difficulties when attempting to develop models of internal processes. Models enabling visual representations of such processes are therefore useful and important to the development of psychological understanding. These techniques, also referred to as “cognitive maps”, can help unearth implicit theories inherent to psychological processes (Ferguson et al., 1997).

As identified by earlier attempts at classifying sexual offenders (Groth, 1979; Marshall, 1989), the core constructs being investigated are aggression and sexuality. Such concepts are multi-model entities (Bishopp, 2003) thus requiring an iterative process exploring the multiple interactions amongst the data. The process of theory building must be guided by theoretical underpinnings (Knight & Prentky, 1990) as well as previous observations and interpretations (Bishopp, 2003). The research outlined below is grounded in the methodological approach of facet theory (Borg & Shye, 1995; Guttman, 1954). Facet theory enables researchers to map out the conceptual elements of the enquiry, which can then be explicitly explored through data analysis. It is often used as the framework for multidimensional scaling, a family of techniques for exploring the dimensional qualities of data within a geometric space.

#### 4.5.1 Facet theory

Facet theory was first proposed by Guttman (1954) with the view of integrating theory and research. Constructs generally emerge from a set of data, and these are essential to theory building and development (Yaniv, 2006). Guttman and Greenbaum (1998) argue that for research to be valid, constructs have to firstly be defined and

conceptualized formally. This initial process of facet theory, known as formalization, integrates both the formal definition and hypothesis construction (Levy, 2006). As such, definitional clarity of a construct is directly linked to its validity, and hence enhances its structural validity. Guttman's work originally focused on representing constructs, or conceptually related variables, unidimensionally in the form of a scale. Although useful, this approach proved problematic due to the complexity of human behaviour and thus lack of purely perfect scales (Guttman & Greenbaum, 1998). As argued by Yaniv (2006), construct complexity can impede on clarity. Facet theory thus developed out of a wish to allow for explicit and systematic exploration and visualization of multidimensional structures as an alternative to a unidimensional representation of the universe. Facets have been described by Guttman and Greenbaum as "*a set of attributes (variables) that together represent underlying conceptual and semantic components within a content universe*" (1998, p. 17). Facets must be conceptually discrete from each other, and variables within each facet must be mutually exclusive. Empirically, facet theory explores the interrelations between variables (Levy, 2006).

Through facet theory, one is able to identify a number of constructs, or facets, relating to the chosen empirical research interest. Smallest Space Analysis (SSA), also known as Similarity Structure Analysis, enables the researcher to empirically represent the above conceptual structures (Guttman & Greenbaum, 1998) using a multivariate analytic procedure (Shye, 2006). Using this procedure enables one to infer a structure of the observable and non-observable components of a facet. SSA was thus developed in order to assess the inter-correlations of the variables contained within facets (Guttman & Greenbaum, 1998). Such analysis is an example of non-metric multi-dimensional scaling, as discussed below.

#### 4.5.2 Multi-dimensional scaling

Multi-dimensional scaling (MDS) is described by Coxon (2013) as “...a family of models where the structure in a set of data is represented graphically by the relationships between a set of points in a space. MDS can be used on a variety of data, using different models and allowing different assumptions about the level of measurement.” (p. 1). MDS allows for the visualization of similarities and dissimilarities, or inter-correlations, between individual cases of a dataset, in which the distance between points reflects an empirical relationship (Poelmans, Van Hulle, Elzinga, & Dedene, 2011). Within this geometric space, also referred to as Euclidean space, distance between spaces represents correlations. Thus, the closest points have higher correlations than further away points (Guttman, 1968; Lingoes, 1973). The data thus typically involves a measure of similarity/dissimilarity between the subjects, and represented using points within a spatial configuration (Wickelmaier, 2003).

The data obtained is displayed in dimensional space, and the object relations between variables can be interpreted through psychological theories. It is therefore hoped that emerging structures correspond to psychological theory. Ferguson et al. (1997) suggest that it can be assumed that the geometrical space inherent to MDS is equal to psychological space. As such, the data will be visually represented on a map. MDS analyses can represent relationships in two or more dimensional spaces (Bishopp, 2003). For example, a-priori hypotheses may help determine the number of dimension spaces required (Wickelmaier, 2003). In addition, one has to determine the type of MDS analysis required. It is possible for MDS to derive dimensions of the data unknown beforehand to the researcher, and it is at times the goal of the analysis to derive these dimensions (Wickelmaier, 2003). Due to its exploratory capabilities and ability to

potentially uncover new idiosyncrasies, MDS is an ideal technique to uncover psychological processes, subsequently useful to the development of psychometric tests (Poelmans et al., 2011).

Whereas previous research has focused on comparing rapists and sexual murderers on their behavioural/psychological characteristics (e.g. Oliver et al, 2007), Canter (2000) suggests the importance of comparing variations within sexual behaviour, for example sex, aggression or other salient behaviours. Furthermore, although research has highlighted that nearly all variables that have been examined exist to a greater or lesser extent in both groups, it appears that no motivation, behavior or disorder seems to differentiate them. The comparison of sexual murderers and rapists is therefore aimed to uncover individual differences using a dimensional approach. A focus on offense dimensions may promote research findings more directly applicable to practice, so that although sexual murderers and rapists may have similar criminogenic needs, the variation identified both within and between them may indicate the need for needs-specific rather than crime-specific assessment, formulation and treatment.

## **4.6 Method**

### **4.6.1 Ethical approval**

This research project attained ethical approval from the University of Birmingham's ethical committee in July 2015 (Appendix 6). No consent was required for this project due to the data being fully anonymised and analysed retrospectively. The data was anonymous both during the conduct of the research and in the release of its outcomes, and no identifiable features were available. The data was obtained from a

previous study by Oliver et al. (2007), and permission to use the data was given by the data owner.

#### 4.6.2 Confidentiality and data protection

As mentioned above, confidentiality was upheld. Further efforts were made to protect the data, such that the database was stored on a password-protected database accessible only to the researcher and research supervisor. In accordance with the University of Birmingham's Code of Practice for Research, the data will be upheld for at least ten years following completion of the project.

#### 4.6.3 Sample

The original data set contained information for 170 male participants awaiting to undergo sex offender treatment. Participants were drawn from 55 sex offender treatment programmes within seven prison establishments in England between 1998 and 2002. The sample comprised of 112 rapists and 58 sexual murderers. Participants all scored below 25 on the Psychopathy Checklist-Revised, and as such the sample does not include psychopaths as described by Hare (2003) (no inter-rater reliability reported).

As a result of missing data, the subset used in this study comprised 113 male participants, including 46 sexual murderers and 67 rapists.

#### 4.6.4 Data coding

The data used in the current study was historical data obtained in England over a four-year period, from 1998 to 2002. It consisted of information gathered from case file analysis and interviews of sex offenders awaiting to undergo treatment. The data had



been coded from the semi-structured content data using a coding framework that would enable to explore every part of the content within every variable turning it from 130 variables into 600 variables.

The variables were coded in a dichotomous format as either absent or present. The variables were initially split between 18 core perpetrator, victim and offence variables as identified in Table 17 below:

Table 17:

*Core variables*

<b>1</b>	Distal antecedents	<b>10</b>	Trigger
<b>2</b>	Major life events	<b>11</b>	Planning
<b>3</b>	Relationships (general)	<b>12</b>	Offence preparation
<b>4</b>	Sexual partners (if yes)	<b>13</b>	Why that victim
<b>5</b>	Pattern of sexual relationships	<b>14</b>	Personal preparations
<b>6</b>	Prior to the offence	<b>15</b>	What victim expecting
<b>7</b>	Alcohol	<b>16</b>	Offence
<b>8</b>	Drugs	<b>17</b>	Immediately after assault
<b>9</b>	Fantasy	<b>18</b>	Post offence

*Procedure and analysis of the data:*

Variables used in the analysis were extracted from an existing database for the purpose of the analysis. A number of stages were undertaken (Figure 3):

*Figure 3: Stages undertaken*



*Stage 1: Facet identification*

Firstly, variables that represented distinct themes were organized conceptually and examined through multi-dimensional scaling (MDS) as a data reduction method. Specifically, the Guttman Lingoes model (SSA – smaller space analysis) was used. This step was completed to explore whether there were underlying facets within each of the components. The following themes were identified:

- Aggression
- Planning
- Sex
- Control

*Stage 2: Scale identification*

Having identified a number of potential underlying facets, these were used as the basis for uni-dimensional scales. A set of scales was thus developed tapping into a range of relevant theoretical concepts, as identified throughout the literature outlined above. These were derived from the functional analysis in order to describe behavioural features of sexual aggression. A set of simple ordinal rating scales were constructed, based on ordinal ratings of 0, 1 or 2. These are illustrated in figures 4 through 7:

Figure 4. Scale 1 - aggression

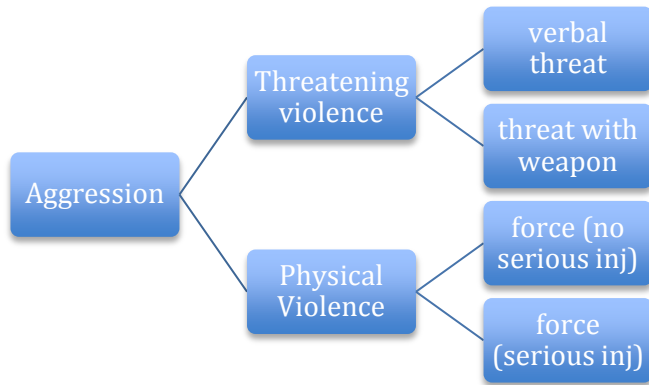


Figure 5. Scale 2: Planning



Figure 6. Scale 3: Sex

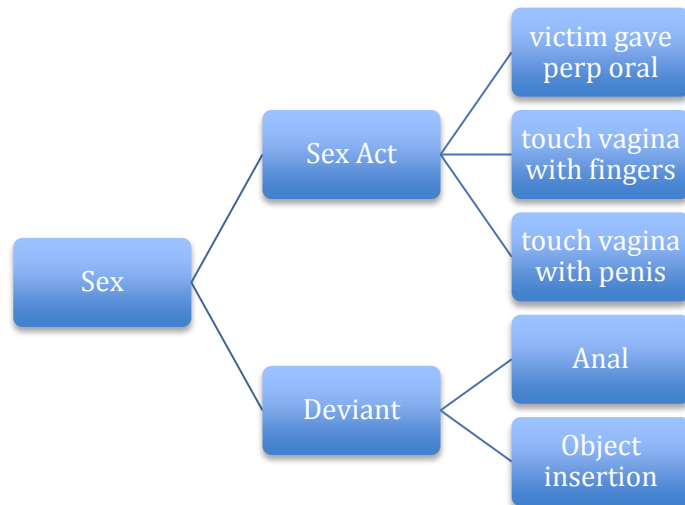
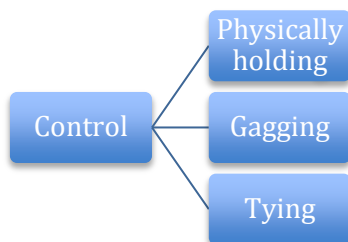


Figure 7. Scale 4: Control



### Stage 3: Exploring individual differences

Having developed a number of theoretically relevant scales, these were used to try and discriminate both between sexual murderers and rapists and within sexual murderers using another form of multidimensional scaling with the aim to explore individual differences. The particular MDS carried out was a multi-dimensional scalogram analysis, or MSA. Due to the fact that the data were largely dichotomous, it was not possible to adopt a linear approach such as factor analysis. As such, we adopted this non-linear scaling approach, ideal for this kind of data (e.g. Canter & Heritage, 1990). The data was subsequently analysed using the MSA program using the scaling approach to attempt to:

1. Discriminate both between sexual murderers and rapists
2. Discriminate within sexual murderers.

#### 4.6.5 Analysis

This research is based on the variables emanating from the functional analysis obtained at the data collection stage. As described above under methodological considerations, the data was analysed using multi-dimensional scaling (MDS), and in particular multi-dimensional scalogram analysis (MSA – Guttman, 1968). This was achieved using the HUDAP (Reuven) data analysis software.

Individual profiles are thus represented as points in space on a scalogram. The visual representation plots the relationship between subjects (in this case, sexual murderers and rapists) based on the relationships of all the variables entered into the analysis (in this case, the scales previously constructed). The MSA then attempts to find a best fit for subjects to the profile.

As all the sexual murderers and rapists are represented in the same position across all the plots, the reader is enabled to see how they might be discriminated on the basis of each of the variables described above. Due to not being a linear model, this representation is implicitly geometric and thus enables fitting subjects within the geometric space. An MSA has a measure of goodness of fit, known as the coefficient of contiguity, available as a stress index. Some studies have suggested a coefficient of .9 to ensure optimal validity (e.g. Zevulun, 1978).

## 4.7 Results

### 4.7.1 Sample demographics

The sample consisted of 67 rapists (age  $M = 34.7$ ,  $SD = 9.6$ ) and 46 sexual murderers (age  $M = 37.5$ ,  $SD = 9.3$ ). Table 18 reports the differences found between sexual murderers and rapists in terms of demographic characteristics. This information was derived from the data originally obtained through case files. As a result of differences in reporting between prisons, the sample sizes vary amongst offender characteristics.

Table 18:

#### *Sample Demographics*

	Rapists			Sexual Murderers			$p^b$
	Valid $n^a$	$M$	$SD$	Valid $n^a$	$M$	$SD$	
Age interview	58	34.7	9.6	44	37.5	9.3	<i>n.s.</i>
IQ WAIS	15	105.5	12.1	19	98.8	14.0	<i>n.s.</i>
Age offence	39	29.0	9.3	42	24.2	7.0	< .05
Age first offence	59	24.9	8.6	40	22.3	7.1	<i>n.s.</i>
Age of victim	67	28.9	15.2	46	37.2	23.4	< .05

a. Valid sample size varied as a result of available information from original case files and resulting data.

b. Significance of independent samples  $t$  tests. *ns* = non-significant

Table 10 demonstrates there were no significant differences between sexual murderers and rapists on age at which they were assessed, IQ as assessed by WAIS score, and age of first offence. Significant differences were however noted on age of the Index Offence, with sexual murderers having committed their offence at a significantly younger age when compared to rapists,  $t(df = 70.74) = 2.61$ ,  $p < .05$ . The two groups

also differed on the age of the victim, with sexual murderers having significantly older victims when compared to rapists,  $t(df = 70.99) = 2.12, p < .05$ . Although many samples of sexual murderers are small and therefore perhaps highly idiographic, studies have often identified rapists as having generally younger victims (Vettor, Beech, & Woodhams, 2014). Furthermore, a higher percentage of sexual murderers offended against an older adult (over the age of 65), therefore possibly reflecting a different (gerontophilic) motive.

#### 4.7.2 Behavioural features

As described above, a set of variables were derived from the functional analysis in order to describe the behavioural features of sexual aggression. Using the scales described above, the MSA program was used to discriminate both between sexual murderers and rapists, and within sexual murderers. In doing the MSA, upon inspection, three of the cases had a profile that was characterized by zero on all variables. These were excluded as they showed no variation which lead to an error when trying to analyse the data. It is worth noting that out of the 110 remaining cases, 28 cases had matching profiles thus yielding a total of 82 unique profiles. Although the scales used in this study to illustrate the method were rudimentary in nature, they are shown below to still be reasonably discriminating. The current study has achieved a coefficient of contingency of .8 in discriminating sexual murderers from rapists, and a coefficient of contingency of .99 in discriminating within sexual murderers only.

Results discriminating between sexual murderers and rapists are presented in figures 8 to 18. Each plot includes a separation line to indicate the rapist/murderer distinction.

Figure 8. Individual cases

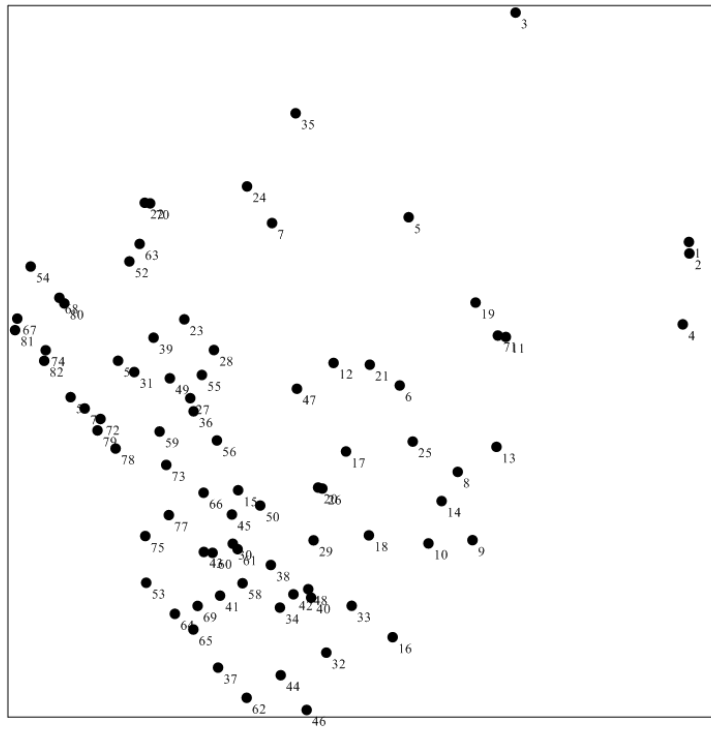


Figure 9. Sexual Murderers vs. Rapists

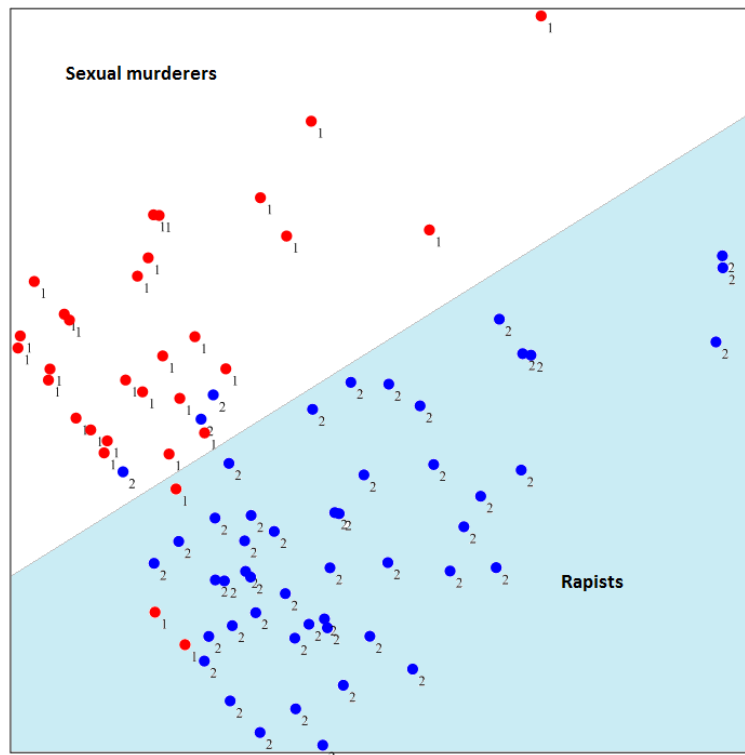
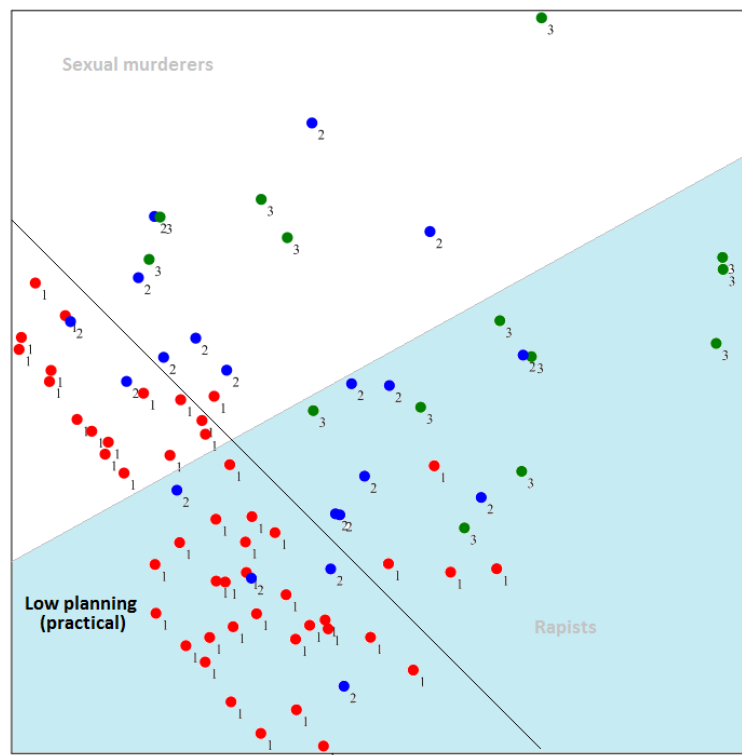




Figure 9 shows sexual murderers (red) and rapists (blue) being collectively discriminated by all the variables entered into the analysis. It is however worth noting that the discrimination appears to occur along a continuum rather than categorically. It is unlikely that the discrimination would be perfect, and there are thus cases who do not fit neatly into the discrete partitions. This may suggest that those profiles are more like that of the other group. It is nonetheless interesting to compare exactly how the individuals compare.

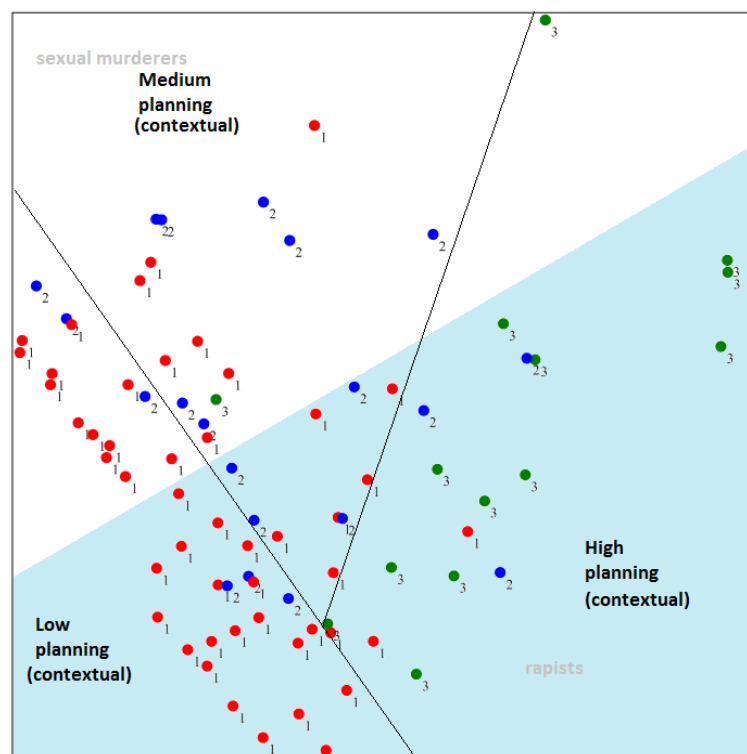
*Figure 10. Planning – Preparation (practical)*



Having derived a basic planning-preparation (practical) scale (see above), it was possible to explore how much preparation was undertaken by both offender groups prior to the offence. Figure 10 shows individual offenders vary within the preparation (initial stage of planning) dimension. Three levels of planning can be observed. This variation however, rather than discriminating between types of offenders, suggests a continuum

of planning across both sexual murderers and rapists, with a lower-planning group being present (red). These results are in support of Ressler et al. (1986)'s organized/disorganized dichotomy, and suggest that it may be useful to consider an offender's level of organization across the continuum of sexual offending rather across crime-type.

Figure 11. Planning – Preparation (contextual)

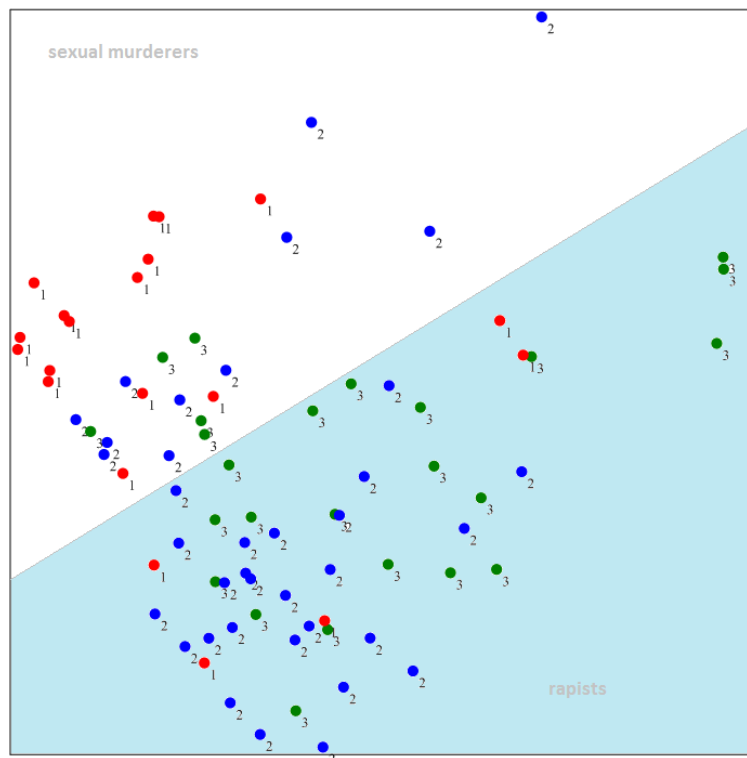


Similarly to the practical preparation, contextual planning of the offence appears to indicate a three-way variation within the offence-planning dimension. Although lower-level offence planning appears to occur similarly amongst both groups, more advanced planning can be observed in the rapist group (green). It is therefore suggested that planning provides useful information both across the sexual offending continuum and in discriminating between sexual murderers and rapists. Whereas both groups

appear to plan similarly practical aspects of the offence, rapists present with higher levels of planning as to the contextual aspects (who, where, when, isolating victim).

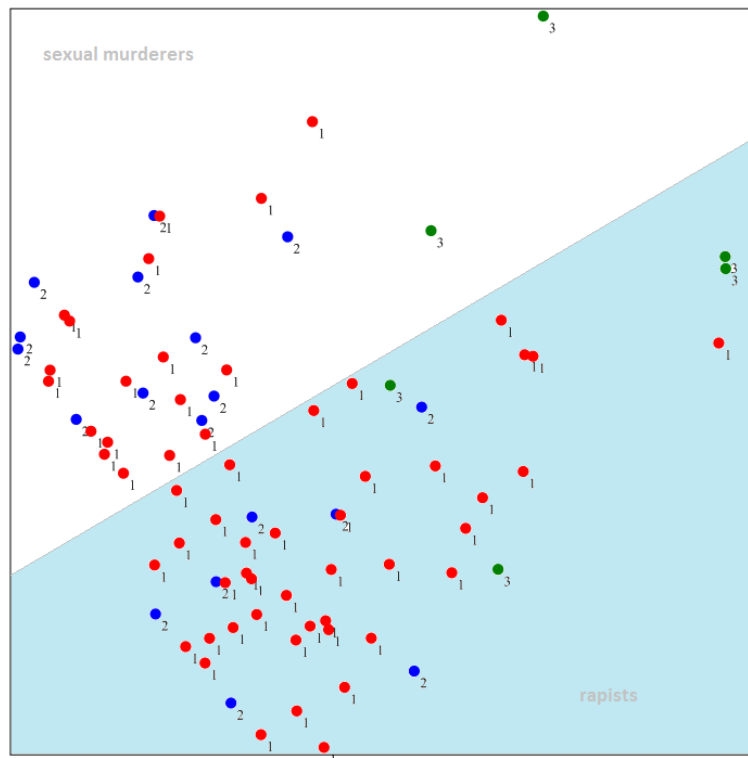
Contrary to planning, it is difficult to discriminate sexual murderers and rapists based on sexual behaviours (Figure 12), and in particular the perpetrator arousing oneself or the victim. Despite this lack of apparent discrimination, there does appear to be a higher proportion of this behaviour in rapists (blue).

Figure 12. Sex - sexual behaviours



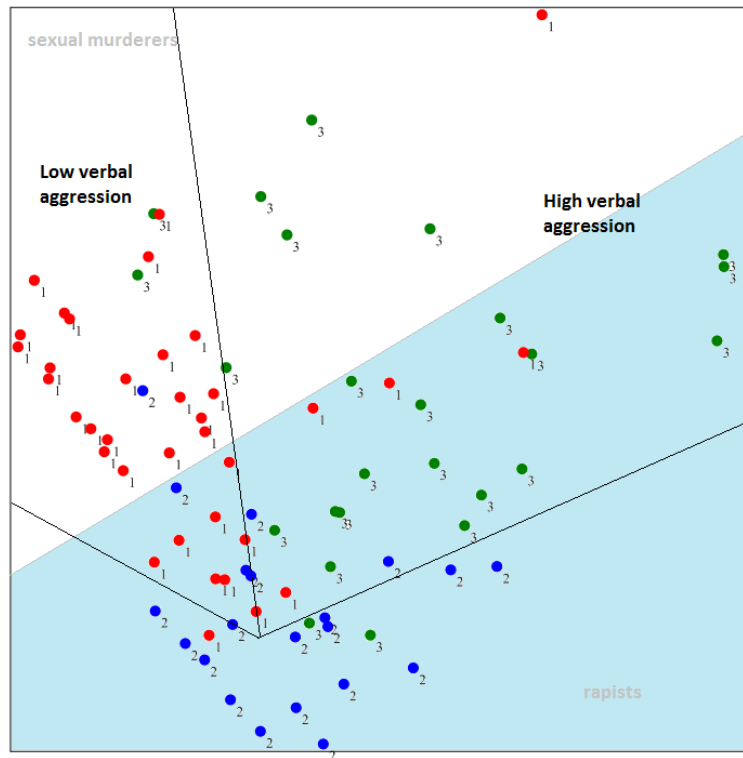
The sex act (oral or vaginal penetration) does not appear to discriminate between groups. It is however possible to partition the space to some extent between the low and the high levels of sexual behaviours.

Figure 13. Sex – sexual deviance



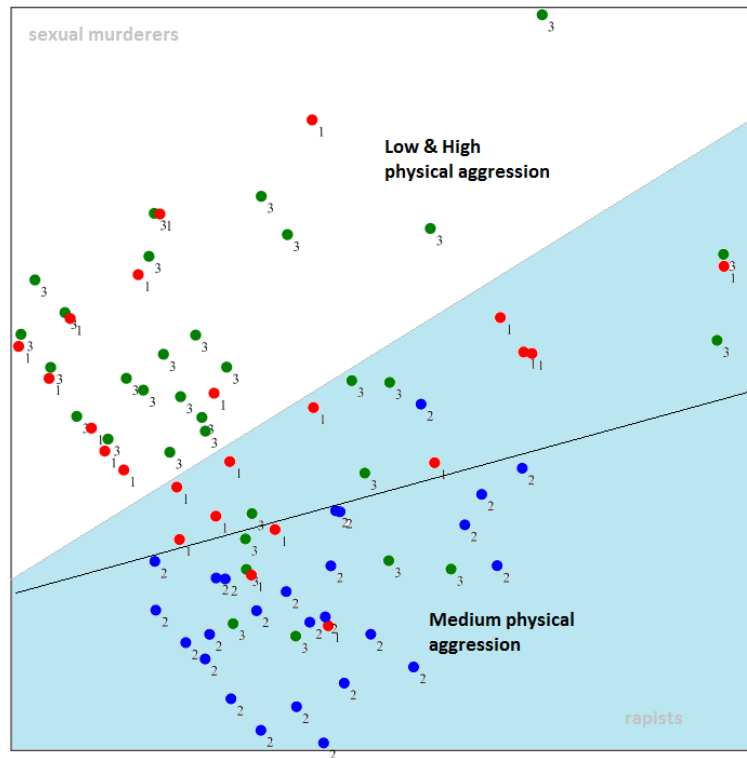
Sexual deviance appears to occur similarly amongst both groups of offenders. It is however interesting that there appears to be a ‘high deviance’ group both within the sexual murderers and rapists group.

Figure 14. Aggression - Verbal aggression



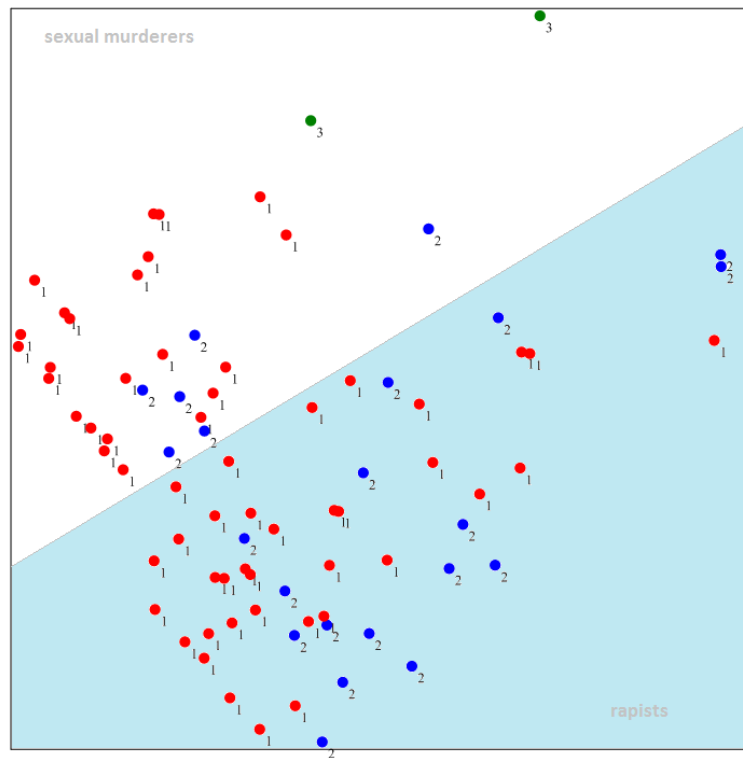
Verbal aggression appears to discriminate both within and between sexual murderers and rapists, thus advocating for a continuum of the behaviour. Low levels of verbal aggression can be observed amongst sexual murderers, whereas medium verbal aggression is more present amongst rapists. It is however interesting that high-level verbal aggression is present across both groups, though marginally more observable in rapists. It is however worth keeping in mind that accounts of verbal aggression within the sexual murderer sample may not be reliable as a result of the self-report nature of data collection.

Figure 15. Aggression - Physical aggression



Similarly to verbal aggression, there appears to be more medium-level physical aggression amongst rapists. High-level aggression appears to discriminate between sexual murderers and rapists, with sexual murderers presenting with more lower-level and higher-level aggression.

Figure 16. Control



Although control exerted by perpetrators on the victim appears not to discriminate significantly between offender type, it is of interest that a larger proportion of rapists appear to demonstrate more control behaviours. These results, in line with previous results indicating higher levels of contextual planning of the offence in rapists, are in line with Ressler et al. (1986)'s suggestion that organized offenders demonstrate more control, for example through the lack of crime scene clues. It is additionally of note that a very small group of offenders within sexual murderers exert a high level of control behaviours.

Figure 17. Composite of discrimination between sexual murderers and rapists

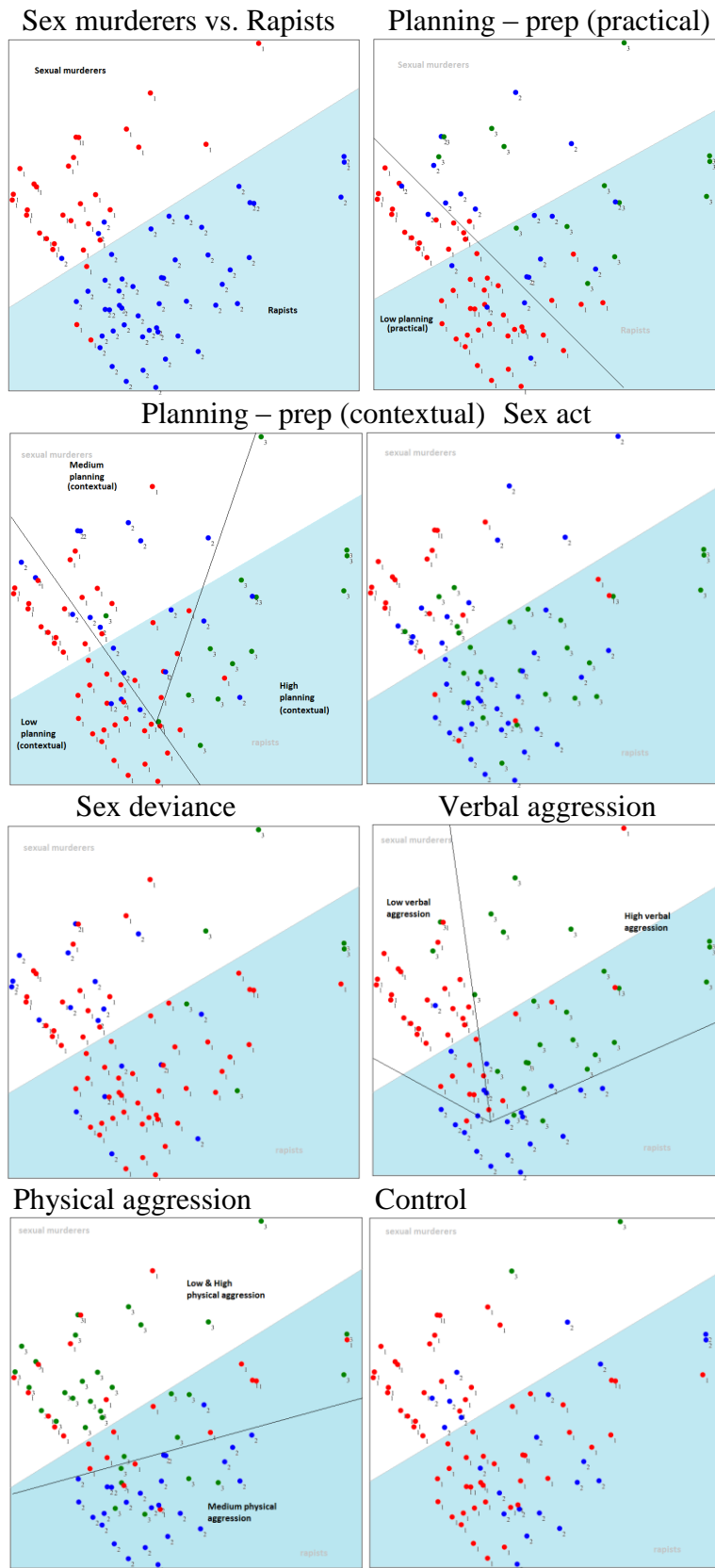
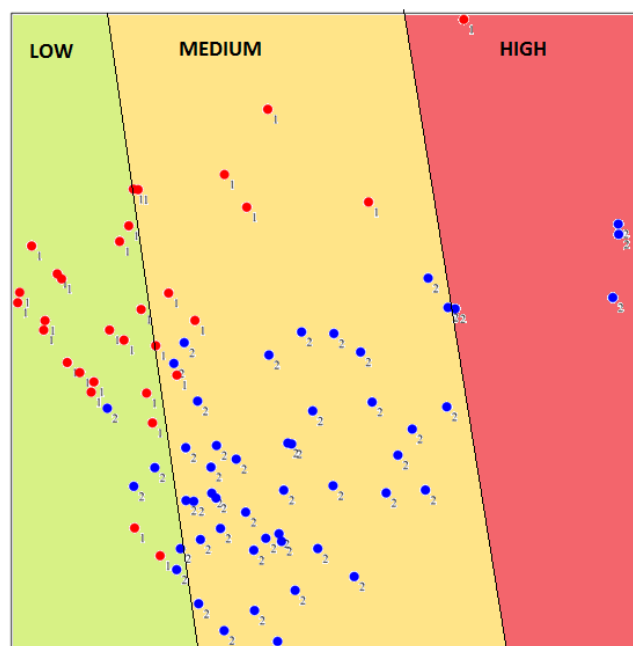




Figure 17 is an attempt to present overall discrimination based on the scales described above. As described in the literature and as expected, complete and distinct discrimination was not possible. As a result, the lines represent a lack of clear boundary and the level of variation. Clusters above are therefore not referred to as ‘groups’ or ‘types’ in an attempt to move away from typologies and towards dimensions of sexual aggression. From this figure it is possible to extrapolate that sexual offenders can therefore be thought of in terms of planning, deviance and aggression displayed. Control is an additional factor present, however the small numbers of highly controlling participants render it difficult to generalize.

It is possible from the results presented above to consider a continuum of sexual offending across rapists and sexual murderers, from lower level verbal aggression, practical and contextual planning, to a highly sexually deviant, highly controlling, highly prepared and verbally aggressive sub-group (Figure 18).

*Figure 18. Continuum of sexual offending across rapists and sexual murderers.*



Sexual murderers were examined using the same approach. Individual plots discriminating within sexual murderers are presented in Appendix 5. In comparison to the findings discriminating between sexual murderers and rapists, there appears to be little discrimination based on offence preparation amongst sexual murderers. Although there is some evidence to support a preparation continuum, there appears to be a small sub-group of high-preparation offenders. Contrary to the practical offence preparation, contextual preparation of the offence itself appears to discriminate within sexual murderers. It is also of interest that those in the medium-level offence practical preparation group also appear in the high-level contextual preparation sub-group.

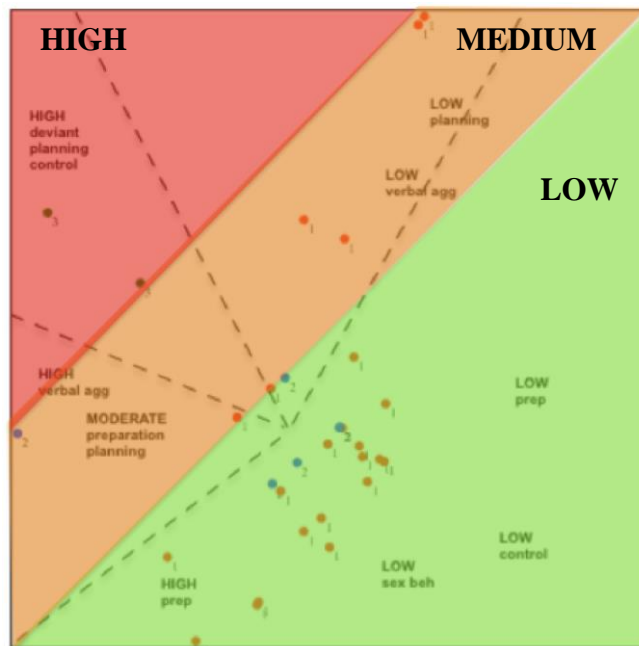
Contrary to discriminating between sexual murderers and rapists, non-deviant sexual behaviours appear to partly discriminate within sexual murderers. Whereas a high proportion of sexual murderers demonstrate one or two sexual behaviours, a small cluster of sexual murderers demonstrate all three sexual behaviours. Although some differences can be observed in deviant sexual behaviour, this does not satisfactorily discriminate amongst sexual murderers. Similarly to discrimination between sexual murderers and rapists however, a very small sub-group of sexual murderers demonstrate high sexual deviance. As a result of the rarity of such presentation, such a small sub-group is to be expected of a medium-sized sample of sexual murderers.

A group of high-verbal aggression can be discriminated from other sexual murderers. On the contrary however, physical aggression does not appear to similarly discriminate. Given the sample is formed of sexual murderers only, it is likely that physical aggression is inherent to the crime thus does not discriminate amongst sexual murderers. Similarly to sexual deviance, very little discrimination occurs amongst the

control scale. There is again a very small sub-group demonstrating high levels of control. Of interest, one of these also demonstrates high sexual deviance.

Figure 19 is an attempt to bring together how the variables can collectively describe differences within sexual murderers. Although this approach remains an imperfect attempt due to the complexity of each of its component, it is the beginning of an identification of sexual murderers on a dimensional rather than a typological level. Similarly to discriminating between sexual murderers and rapists, this demonstrates the usefulness of discriminating amongst dimensions of the sexual offending continuum rather than attempting to categorize offenders into distinct types. Similarly to discrimination between sexual murderers and rapists, there appears to be a continuum across sexual murderers from lower level preparation/planning, sexual behaviours and control to higher levels of planning, verbal aggression, sexual deviance and control.

Figure 19: Continuum of sexual offending within sexual murderers



## 4.8 Discussion

The current research used conceptually and theoretically relevant scales in order to discriminate both between sexual murderers and rapists and within sexual murderers to explore individual differences. It is important prior to making any interpretations or recommendations to keep in mind that the data used for this study was sub-optimal. As a result, the scales constructed are very basic in nature, and although the constructs were explored in line with the existing literature, significant improvements could be made on scale construction in future research.

However, despite the limitations inherent to the data, this study demonstrated that it is possible to discriminate both between sexual murderers and rapists and within sexual murderers alone using a dimensional approach. This therefore demonstrates that there are underlying structures common to both sets of offenders, and thus that there are quantitative and qualitative similarities. The level of variation amongst the proposed dimensions enables one to argue for dimensions of sexual offending along a continuum of aggression, planning, control and sexual deviation, rather than being in support of discrete types of sexual offenders. As such, as previously demonstrated by Bishopp (2003), it is possible to discriminate amongst individuals using a combined set of dimensions rather than a single construct.

Although this study did not set out to identify or discriminate based on the offenders' motivations for offending as such, it may be extrapolated that dimensions such as control and aggression may give us some insight as to the motivational elements of offending. It is of course important to keep in mind that the data provided only accounted for behavioural features, thus not allowing insight into the underlying cognitive processes. The results obtained and outlined in this paper can however serve

as the building blocks to the dimensions of sexual offending, as it has demonstrated the promise of such approaches.

#### 4.8.1 Limitations

Prior to being able to bring together the results of this paper, it is important to acknowledge the limits inherent to the data. There are obvious limits to how much was known about both groups of offenders based on the data collected as part of the functional analysis.

The data was collected in UK prisons only, thus not allowing outcomes to be generalized to other countries or cultures. Furthermore, participants were chosen from a list of offenders awaiting Sex Offender Treatment Programmes, and as a result did not score above the cut-off for psychopathy. It is possible that psychopathic offenders may present with variation amongst some features, for example on sexual deviance or control exerted on the victim. Similarly, the sample was chosen from a prison environment rather than a secure hospital. It is therefore possible that such a sample would represent a sub-group of offenders with different clinical features.

In addition to limitations as a result of chosen participants, there are limitations to the data that was extracted from the functional analysis. As indicated above, the constructed scales are very basic in nature as a result of being based on a minimal set of behavioural variables. More detailed data may enable the construction of more robust scales and thus significant improvements in level of discrimination both between and within groups.

#### 4.8.2 Conclusion

In conclusion, this study has demonstrated that it is possible to discriminate both between sexual murderers and rapists and within sexual murderers based on a set of combined dimensions. It is possible that rather than thinking about offenders' pathways to sexual offending (e.g. Stefanska et al., 2015), researchers may want to focus on offence dimensions, as corresponding to clinical descriptions. Such a change of approach may promote research findings more directly applicable to practice. The current study's findings indicate that sexual murderers and rapists may have similar criminogenic needs, but the variation identified both between and within both groups highlights the benefits of needs-specific rather than crime-specific assessment, formulation and treatment. For example, it would be of interest to develop treatment programmes made up of modules specific to particular criminogenic needs, for example offenders demonstrating high deviance or high control.

Because theoretical approaches tend to be categorical in nature, they often fail to consider the underlying behaviour in an objective way. A behavioural dimensional approach such as that used in the empirical study moves away from just considering clinical needs based on psychological formulations, and adds a consideration of the actual behaviour that can inform sex offenders' assessment and provide an objective assessment of their offending behaviour. As outlined by Canter (2000), crimes can be examined by identifying prominent features (i.e. behaviours) and submitting them to empirical scrutiny to infer offender characteristics. As such, dimensions of sexual offending could serve as a starting point to uncover cognitive processes, behavioural variables and resulting treatment needs. Furthermore, whereas current case formulations are often centered around the offense itself (for example, rape or sexual murder), a

dimensional approach may help the clinician to take into account the multitude of factors collectively. Dimensions such as control and aggression could further provide the clinician with some insight as to the motivational elements within the offense. Inferences could therefore be made concerning the meaning of the core behavioural dimensions if further validation work was undertaken to link the dimensions to other available assessment data concerning motivation, cognitions or deviant interests. Finally, using a dimensional approach would enable both clinician and researchers to observe variations between individuals explicitly. As such, a profile of the offender's underlying features could be drawn up. Such an approach would enable clinicians and researchers to discriminate within and between groups, rather than attempting to categorically distinguish between heterogeneous offenders.

Future research would benefit from obtaining more detailed data inclusive of both victim details and forensic data in order to enable better discrimination. This would enable researchers and subsequently clinicians to gain an understanding of what the offenders' risk is, as opposed to simply whether or not they are high risk. Similarly, this research would benefit from being replicated in other countries and cultures in order to develop more generalizable results and to explore whether such dimensions are present across cultures.

**CHAPTER FIVE**  
**General Discussion**



## 5 GENERAL DISCUSSION

### 5.1 Presentation of findings

The purpose of this thesis was to develop an explanatory framework for the understanding of sexual murder with a view to inform risk and treatment. This was achieved through a dimensional exploration of the multifaceted factors of sexual murderers and rapists. It was hoped this would contribute to the current knowledge about the characteristics of sexual murderers, and would discriminate both between sexual murderers and rapists and within sexual murderers.

**Chapter two** provided a systematic review of the literature exploring existing typologies of sexual murderers and rapists, and comparing their psychological characteristics. A review of the literature indicated that previous systematic reviews focused on comparing serial and non-serial sexual murderers (James & Proulx, 2014), as well as exploring the characteristics of sexual murderers alone (Carter & Hollin, 2010), including the developing of and presence of deviant sexual fantasies (Maniglio, 2010). To date, there however exists no review of the literature systematically exploring the psychological characteristics of sexual murderers as compared to that of rapists. While no consensus on definition may have been reached, researchers have been able to clearly identify groups of offenders who can be described as sexual murderers, thus allowing comparison with other offender groups. These have often been based on existing definitions, such as that developed by Ressler et al. (1988). Given the rarity of sexual murder, it is however likely to remain a fairly heterogeneous group (Proulx, Beauregard, Cusson & Nicole, 2007). Despite this limitation and the clear lack of

consensus amongst the literature on whether psychological characteristics differ between the two groups, the review highlighted a number of qualitative and quantitative similarities between sexual murderers and rapists. A review of existing typologies identified four core themes (sex, violence, power and emotional/mental state) common to both sexual murderers and rapists. These results support Bishopp's (2003) earlier findings of the presence of these themes within a sample of rapists only. Despite the presence of common themes, the review highlighted that authors have been focusing on various features of sexual offending including clinical features (e.g. Koch et al., 2011; Proulx & Sauvêtre, 2007; Revitch & Schlesinger, 1981/1989), behaviours (e.g. Ressler et al., 1986) and motives (e.g. Groth, 1977). As a result, types identified are often defined by a single variable such as the motive. Samples were additionally found to vary and may therefore be missing the full variety of features. For example, whereas fantasy and deviant behaviour in mentally disordered samples may suggest that some are mentally ill or schizoid, other samples suggest psychopathic offenders.

The systematic review found that demographic characteristics, forensic history and substance use appeared not to discriminate between sexual murderers and rapists. Substance use was found to be highly prevalent in both groups (Langevin et al., 2003) thus possibly rendering discrimination difficult (James & Proulx, 2014; Langevin et al., 2003). In addition to the above non-discriminating factors, sexual murderers were found to report significantly more abuse during their childhood (Koch et al., 2011; Milsom et al., 2003), and Grubin (1994) found more than half of the sample to have suffered childhood sexual abuse. A number of clinical features were additionally identified as potentially discriminating between groups. Whereas personality disorders were found to be common within both groups of offenders, antisocial personality disorder was most

commonly found within sexual murderers (Langevin 2003). In addition, sexual murderers were found to have higher psychopathy scores (Koch et al., 2011; Langevin et al., 1988). There was a general consensus amongst studies about sexual behaviours and paraphilias being present in both sets of offenders, with sexual sadism (Koch, 2011; Langevin et al., 1988; Langevin 2003), pornography and fetishism (Langevin, 2003) found to exist most in sexual murderers. Finally, sexual murderers appeared motivated by power, anger and sexual release (Langevin et al., 1988).

**Chapter three** presented a critique of the Severe Sexual Sadism Scale (SSSS; Nitschke et al., 2009). Sexual sadism is often identified as present in a sub-group of sexual murderers (Proulx et al., 2014), and has attracted considerable interest despite its rare occurrence. The review of the literature on sexual sadism and the critique of the SSSS indicated that sexual sadism should be explored dimensionally rather than as a distinct concept. Sadism has been difficult to operationalize as a diagnosis because it does not represent a distinct disorder in the same way that a personality disorder defines a set of symptoms. Rather, it represents a set of behaviours (Marshall & Hucker, 2006) which may be underpinned by a variety of different disorders, for example psychopathic, schizoid or schizophrenic. Similarly to sexual aggression, sadism is likely composed of a number of concepts rather than being a simple dimensional construct, depending on how it is defined as an extreme mix of power, sex and aggression (e.g. Bishopp, 2003; Nitschke et al., 2009; Yates et al., 2008). Consequently, sexual sadism can be viewed as the product of the extreme end of the same dimensions which help to define sexual aggression generally. This was demonstrated to some extent within Chapter 3, highlighting that power, aggression and sex all vary continuously. A small group can be described as sadistic by virtue of their extreme behaviour, but this does not

describe anything specific about their personalities. Whilst the SSSS was found to be a useful tool when used in conjunction with other more established assessments, it was evident that further replication studies were required to improve its reliability and validity.

The systematic appraisal of psychological characteristics of sexual murderers and rapists, together the critique of the SSSS (Nitschke et al., 2009), indicated a need to consider the uncovered themes (e.g. sex, control, violence) as a starting point for future research as well as consider sexual offending according to variations along dimensions, rather than the current categorical or typological approaches. As a result, **Chapter four** provided an attempt at discriminating both between sexual murderers and rapists and within sexual murderers using a set of theoretically and conceptually relevant scales in order to explore the various dimensions of sexual offending. Although previously developed typologies have been a useful starting point (e.g. Knight & Prentky, 1990), their lack of flexibility lead to a lack of validity because of trying to force the dimensions (as high and low) into a discrete number of types. As a result, the dimensional approach taken in the aforementioned empirical study was aimed at exploring sexual offences through describing variations according to a number of dimensions in order to consider the individual patterns of behaviour. Although it may be possible to group offenders based on constellations of dimensions, it is suggested that this study provided the basis for a provisional explanatory framework that could be further developed to help better understand these groups.

The empirical study (Chapter 4) demonstrated that it is possible to discriminate between sexual murderers and rapists and within sexual murderers using a dimensional approach. Although complete and distinct discrimination was not possible, the

qualitative similarities highlighted between both offender groups indicate that this study has been able to uncover at least part of its underlying structures. Its findings indicate that sexual offenders can be thought of in terms of planning, deviance and aggression display. A continuum of sexual offending across rapists and sexual murderers was found, from lower level verbal aggression, practical and contextual planning, to a highly sexually deviant, highly controlling, highly prepared and verbally aggressive sub-group. A similar continuum can be observed within sexual murderers only, from lower level preparation/planning, sexual behaviours and control to higher levels of planning, verbal aggression, sexual deviance and control.

## **5.2 Contribution to the literature**

The contradictory results obtained in the systematic review about the demographic characteristics of sexual murderers and rapists were consistent with the existing literature (e.g., Carter & Hollin, 2010; Oliver et al., 2007), indicating a lack of consensus on characteristics discriminating sexual murderers and rapists. Support has additionally been provided indicating that nearly all variables that were examined thus far in the comparative literature (e.g., childhood abuse, substance misuse, personality, interpersonal relationships) and in the typological literature (sex, aggression, control, sadism) exist to a greater or lesser extent in both offender groups, suggesting no motivation, behaviour or disorder seems to differentiate them.

The critique of the SSSS (Nitschke et al., 2009) identified that the study of sexual sadism remains scarce and that more research is needed. Furthermore, it identified that a question remains as to whether sexual sadism is predictive of sexual or violent reoffending upon release, and therefore whether it is relevant to risk assessment

and treatment. Support was provided for sexual sadism to be explored in a dimensional as opposed to categorical manner (Marshall & Hucker, 2006), thus supporting a move from diagnoses as category to diagnoses along a spectrum of behaviours. Despite its limitations, the SSSS was found to be a useful tool to use in conjunction with other diagnostic tools (Mokros et al., 2012).

The discrimination using a dimensional approach demonstrated in the empirical study supports the argument for dimensions of sexual offending along a number of continua. Early approaches to the classification of sexual offenders moved away from the function of rape as purely sexually motivated and proposed the importance of motives such as power and anger (e.g., Groth et al. 1977) as well as variations within such dimensions for example instrumental or expressive aggression (e.g., Knight & Prentky, 2001). Investigative approaches such as the expert deduction method (Canter, 2000) suggest a crime can be examined by identifying prominent features of the crimes (e.g. behaviours) and submitting them to empirical scrutiny to infer offender characteristics. Canter (2000) thus proposed that one can explore psychological differences between crimes. One such approach was demonstrated by Canter and Heritage (1990) who proposed a fivefold framework of sexual offending behaviours composed of sexuality, violence and aggression, impersonal or sexual gratification, criminality, and interpersonal intimacy. The use of such a composite structure allows the variations between individuals (or underlying features) to be observed explicitly. A dimensional approach is therefore more flexible than the typical categorical and typological approaches as it enables practitioners to consider more variation across individual profiles in terms of behaviour. Within formulations and risk assessments, behaviour is often overlooked in favour of clinical features such as attitudes.

Considering behaviour alongside other available information therefore serves to complement clinical information and consider more specific risks an individual poses in terms of actual behaviour. In line with the above literature, scales of aggression, planning, control and sexual deviation were used to discriminate between sexual murderers and rapists and within sexual murderers. The findings suggest it is possible to argue for dimensions of sexual offending along a continuum of aggression, planning, control and sexual deviation, and demonstrated that it is possible to discriminate between sexual murderers and rapists and within sexual murderers using a dimensional approach. Although it was concluded that there are qualitative similarities between both sets of offenders and that this study has been able to uncover at least part of its underlying structures, it is possible that future research not only build on these scales but also uncover additional dimensions able to discriminate both within and between groups of offenders.

### **5.3 Limitations**

Prior to interpreting the findings of this thesis, it is important to acknowledge the limitations inherent to each chapter. The definition of sexual murder is inherently complex as a result of it being formed of a cluster of activities. This may lead to alternate selection criteria, and may result in difficulties identifying clearly what exactly the studies were measuring, and therefore how best to compare them. Furthermore, given the extreme rarity of the occurrence of sexual murder, empirical studies tend to be formed of small idiographic samples thus rendering generalization of results difficult and potentially less reliable. As a result of the scarce literature, the search terms used in the systematic review were broad. This may have resulted in an inability to explore a

more narrow research question. In addition, all studies included had clear methodological limitations thus impacting on the generalizability of the findings. Finally, the review identified that similarly to rapists, sexual murderers appear to be a heterogeneous group and there remains a clear lack of consensus on what are the salient features within sexual murder.

Unlike participants included in the systematic review, data for participants in the research study was collected in the United Kingdom only, and may therefore not be generalizable to other countries. Similarly, the data did not include any psychopathic offenders and was collected in prisons only. It is therefore possible that one or more sub-groups of sexual murderers and rapists were not identified. As well as limitations inherent to the participants, there were clear limitations to the data available. The behavioural data extracted from the functional analysis did not allow the researcher access to cognitive processes of the offenders, and thus only allowed limited inferences as to the motivational or background features for offending.

This thesis has identified a number of themes key to the understanding of sexual offences. Uncovering these conceptually and psychologically relevant dimensions has provided the groundwork for a different approach to the study of sexual offending along a continuum. This could serve as the foundation for future research, thus moving away from inflexible categorical or typological approaches to flexible approaches able to embrace the heterogeneity, variability and complexity of sexual offences. As such, research could focus on describing the diversity present within sexual murderers rather than trying to simply them into a simple set of features or types (e.g. Stefanska et al., 2015).



## 5.4 Applications of findings

Implications for practice were explored in each chapter of this thesis, together with suggestions for further research. Essentially, despite a clear lack of consensus throughout the evidence base, the review of the literature (Chapter 2) indicated some qualitative and quantitative differences and similarities between sexual murderers and rapists. Key themes were identified in existing typological approaches (sex, aggression/anger, power/control/sadism, emotional/mental state) and in the literature exploring characteristics of sexual murderers and rapists (childhood abuse, substance misuse, personality, interpersonal relationships). Clinical characteristics of importance were identified as having the potential to help clinicians determine areas of assessment in order to aid formulation thus aiding clinical practice. Although it is acknowledged that part of the thesis may not directly impact on treatment as such, it is suggested that an improved understanding of sexual murderer would lead to treatment targeting criminogenic needs of such offenders more directly and accurately.

Although the critique of the SSSS (chapter 3) was in some ways more theoretical, the measure fits well both within the applied field and the evidence base and its implications on clinical practice are therefore of importance. This critique concluded that whereas sexual sadism continues to be treated as a distinct diagnosis, it should attempt to reflect a more dimensional view and move away from a diagnosis as it does not represent a distinct disorder (Marhsall & Hucker 2006). It was additionally found that the SSSS was a useful scale to use in conjunction with other diagnostic tools, however the impact of such a diagnosis on an individual was highlighted as major, thus stressing the importance of future research exploring the impact of sexual sadism on future risk.

The findings of the empirical study have possible implications for investigative practices given the emphasis on behaviour, and it is hoped it may serve as a starting point for future research attempting to explore and potentially uncover cognitive processes, behavioural variables the of offence and resulting treatment needs.

## **5.5 Conclusions and recommendations**

Through identifying qualitative similarities between sexual murderers and rapists, this thesis has provided an empirical basis for the support of dimensional approaches to the study of sexual offending, thus demonstrating the promise of such approaches. It is hoped that the dimensions uncovered in this thesis may serve as the building blocks to the dimensions of sexual offending, and thus as the foundation for future research. Such a fundamental change in approach and perspective may promote research findings more directly applicable to practice, with a focus away from crime-specific research to conceptually relevant needs specific research. Such a drastic change in viewpoint would enable professionals researching the sexual offending field to take into account a multitude of factors collectively discriminating both within and between groups, rather than attempting to categorically distinguish between heterogeneous offenders. It is hoped practitioners will ultimately be able to draw upon the key concepts and dimensions to improve on the assessment, formulation and treatment of sexual offenders.

## **5.6 Future research**

Throughout the thesis, it was apparent that samples used across studies tend to be relatively small. Similarly, they tend to be chosen from distinct countries. Future

research should thus focus on replicating results more widely across different languages and cultures. Future research should focus on strengthening the validity of the findings presented in this thesis, and an increased consensus would as a result aid both the assessment, formulation and treatment of sexual murderers, both on their own and relative to that of rapists. It would additionally be of clinical interest to investigate whether the themes highlighted in this review are reflected and targeted in current specialist treatment programmes for sexual offenders.

Although there has been significant interest in sexual sadism amongst sexual murderers, future research should explore the impact of the diagnosis of sexual sadism on future risk, whilst attempting to build on our current knowledge and understanding of sexual sadism to create a dimensional assessment of severe sexual sadism in order to differentiate between sadistic and non-sadistic sexual offenders. In addition, future research should explore the link between personality disorder, psychopathy and sexual sadism in the hope to uncover and understand possible underlying personality structures. In conclusion, future research should continue to aim for a dimensional exploration of sexual offending in order to enable a dimensional rather than categorical understanding of its occurrence.

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