PSYCHOPATHIC TRAITS AND OFFENDER CHARACTERISTICS AMONGST FEMALE OFFENDERS IN A SOUTH AFRICAN CORRECTIONAL CENTRE

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DECLARATION

I, **Sasha Basson**, declare that the dissertation, **Psychopathic Traits and Offender Characteristics amongst Female Offenders in a South African Correctional Centre,** herby submitted by me for the Master Artium (Research Psychology) degree at the University of the Free State, is my own independent work and has not previously been submitted by me at another university/faculty. I further more cede copyright of the dissertation in favour of the University of the Free State.

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My sincere thanks to the following influences in my life:

SUMMARY

Psychopathy among female offenders remains a relatively unexplored area despite an increase in offending behaviour amongst females. This study investigates psychopathy and the demographic variables among a sample of female offenders. A non-experimental research method with a criterion group design was implemented. The participants consisted of 100 female offenders currently sentenced at the Kroonstad Correctional Centre in the Free State. The data was collected through the use of two questionnaires, the Psychopathic Personality Inventory-Revised (PPI-R) (Lilienfeld & Andrews, 1996) and a self-compiled demographic-risk questionnaire developed from the Level of Service Inventory-Revised: Short Version (LSI-R: SV) (Andrews & Bonta, 1995). Descriptive statistics were calculated to determine the prevalence of psychopathy among the sample and a multivariate analysis was used to investigate any significant difference in mean psychopathy scores. Finally effect size (d) was calculated to determine whether any practical significance for the results exists. Results indicated that 90% of the sample in each age group complied with the cut-off score of the PPI-R, which is indicative of psychopathy. The differences in the average PPI-R score indicated a significant result at the 1% level for one demographic variable, namely *primary caregiver*. This indicates that the findings are of average practical significance. A one-way analysis of variance found a significant difference on the 1% level for blame externalization. This indicates a large effect size, which shows that the result is of practical importance. Thus it seems that female offenders presenting with psychopathy, who were raised by one parent or their grandparents show higher tendencies to blame their problems on others.

Keywords: Psychopathy, demographic variables, female offenders, correctional centre, Psychopathic Personality Inventory-Revised (PPI-R), Self-compiled demographic-risk questionnaire, Level of Service Inventory-Revised: Short Version (LSI-R: SV).

OPSOMMING

Psigopatie onder vroulike oortredes bly 'n relatiewe onbekende gebied ten spyte van 'n toename in misdadige gedrag onder vroue. Hierdie studie ondersoek psigopatie en die demografiese veranderlikes onder 'n steekproef van vroulike oortreders. 'N nie-eksperimentele navorsing metode met 'n maatstaf groep ontwerp is geïmplementeer. Die deelnemers het bestaan uit 100 vroulike oortreders tans gevonnis by die Kroonstad Korrektiewe Sentrum in die Vrystaat. Die data is ingesamel deur middel van twee vraelyste, die Psychopathic Personality Inventory-Revised (PPI-R) (Lilienfeld & Andrews, 1996) en 'n self-saamgestel demografiese risiko vraelys ontwikkel uit die Level of Service Inventory-Revised: Short Version (LSI -R SV) (Andrews & Bonta, 1995). Beskrywende statistiek was bereken om die voorkoms van psigopatie onder die steekproef vas te stel en n' meerveranderlike analise is gebruik om 'n beduidende verskil in die gemiddelde psigopatie tellings te ondersoek. Ten slotte is effekgrootte (d) bereken om te bepaal of daar enige praktiese betekenis vir die resultate bestaan. Resultate het aangedui dat 90% van die steekproef in elke ouderdomsgroep voldoen aan die afsnypunt van die PPI-R, wat 'n aanduiding van psigopatie is. Die verskille in die gemiddelde PPI-R telling het betekenis gedui op die 1% vlak vir een demografiese veranderlike, naamlik *primêre versorger*. Dit dui daarop dat die bevindinge van gemiddelde paraktiese betekenis is. 'N eenrigting-variansieanalise het 'n beduidende verskil op die 1%-vlak vir skuld eksternalisering aan gedui. Dit dui op 'n groot effek grootte, wat toon dat die resultaat van praktiese belang is. So blyk dit dat vroulike oortreders wat psigopatie toon wat deur een van hulle ouers of hul ouma en oupa groot gemaak is wys hoër tendense om hul probleme te blameer op die ander.

Sleutelwoorde: Psigopatie, demografiese veranderlikes, vroulike oortreders, korrektiewe sentrum, Psychopathic Personality Inventory-Revised (PPI-R), Self-saamgestel demografiese risiko vraelys, Level of Service Inventory-Revised: Short Version (LSI-R: SV).

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CHAPTER 1

OUTLINE OF DISSERTATION

1.1   Introduction

This chapter focuses on the background from which the research was conducted and serves as an introduction to the dissertation highlighting the problem statement, research goals and objectives, the research methodology and provides a clarification of the constructs under investigation. The chapter concludes with an overview of the chapters to follow in the dissertation.

1.2   Problem Statement

Escalating rates of criminal convictions and incarceration among women encouraged the exploration of psychopathy among female offenders (James, 2009; Jordan, Schlenger, Fairbank, & Caddell, 1996). Literature confirms that female psychopathy remains unexplored and that research is needed to investigate the base rate of psychopathy in women (Cleckley, 2011; Hare, 1991; Jackson, Rogers, Neumann, & Lambert, 2002; Weizmann-Henelius, Viemerö, & Eronen, 2004). However, despite the current dilemma international research has continued to primarily focus on male psychopathy (Babiak, Neumann, & Hare, 2010; Häkkänen-Nyholm & Nyholm, 2012; Hazelwood, 2006; Jackson et al., 2002; Patick, 2005; Rogstad & Rogers, 2008; Hemphill, Straachan, & Hare, 1999 as cited in Raine & Sanmartin, 2001). Psychopathy presents in both males and females although more men than women are psychopaths (Babiak et al., 2010). Studies have confirmed that prevalence rates differ for females as opposed to males and available data indicates that on average 15% of female offenders meet the criteria for psychopathy (Jackson, 2001; Raine & Sanmartin, 2001).

The study of psychopathy among women is important in a clinical and theoretical context. The assumption that the research on male psychopathy can automatically be conveyed to

women presents major risks for misdiagnosis, treatment and procedures of incarceration (Wynn, Høiseth, & Pettersen, 2012).

Given the complexity of psychopathy it is very important that the etiology of psychopathy be examined. Various arguments on the causes of psychopathy have been based on biological/genetic, evolutionary, environmental and/or demographic factors (Blair, Peschardt, Budhani, Mitchell, & Pine, 2006; Blonigen, Carlson, Krueger, & Patrick, 2005; Glenn & Raine, 2009; Vien & Beech, 2006).

Studies have clearly illustrated that a relationship between psychopathy and certain demographic variables exist, even though studies examining these constructs have also been limited to male populations (Brody & Rosenfeld, 2002; Verschuere, Ben-Shakhar, & Meijer, 2011). For example studies have shown that some psychopaths are highly intelligent while others possess below average or average intelligence, psychopaths may come from single or two-parent homes and may themselves even be married with children (Babiak et al., 2010). Others found that psychopathic offenders tend to be unemployed, have previous arrest records and have higher rates of marital separation. Substance abuse disorders were also found to be common comorbid clinical diagnoses (Brody & Rosenfeld, 2002; Mulder, Wells, Joyce, & Bushnell, 1994). Other important demographic variables relating to psychopathy included parental discord, physical abuse and parental drug use which was frequent during the childhood of the offenders (Brody & Rosenfeld, 2002). Research focusing exclusively on female offenders found psychopathy to be more extensive in urban areas as opposed to rural areas and to be higher among black individuals (Lynn 2002; Paris 2003).

It is from this context that a need was identified to explore the prevalence of psychopathy among female offenders and also to identify the demographic variables/offender characteristics relating to the disorder within a South African framework. This knowledge has significant use in that the proper identification of psychopathic offenders can have far reaching implications in terms of treatment, incarceration, parole decisions and eventual release (Jackson et al., 2002).

1.3   Research Goals and Objectives

The primary goal of the study is to determine the prevalence of psychopathic traits among female offenders in a South African correctional centre. The subsequent purpose is to examine which demographic variables are present among female offenders presenting with psychopathic traits. The study finally also examines whether there is any significant difference in mean scores in psychopathic traits regarding any of the demographic variables among female offenders presenting with psychopathic traits in a South African correctional centre.

The following research objectives were therefore the focus of the study:
- What demographic variables are present among incarcerated females presenting with psychopathic traits?

- What is the prevalence of psychopathic traits among incarcerated females?

- Is there a significant difference in mean scores in psychopathic traits regarding any of the demographic variables among incarcerated females presenting with psychopathic traits?

According to the abovementioned objectives it was hypothesised that a significant difference in mean psychopathy scores will be apparent among the female offenders regarding one or more of the demographic variables.

1.4   Research Methodology

1.4.1   Research Design

A quantitative, non-experimental research method and a criterion group research design was used for the purpose of this study.

1.4.2 Data collection procedures

The data was collected through the completion of two questionnaires, namely the Psychopathic Personality Inventory-Revised (PPI-R) (Lilienfeld & Andrews, 1996) and a self-compiled demographic-risk questionnaire. The questionnaires are only available in English, thus an instructed postgraduate student assisted the participants in Afrikaans and a staff member at the correctional centre assisted the participants in Sesotho on the two days of data collection.

1.4.3 Measuring instruments

The following self-report measuring instruments were utilised in this study:

The Psychopathic Personality Inventory-Revised (PPI-R) (Lilienfeld & Andrews, 1996) is a self-report measure consisting of 187 items measuring the component traits of psychopathy and the global psychopathy. Items of the PPI-R are rated on a 4-point Likert scale. The test is arranged into eight sub-scales, namely: machiavellian egocentricity, social potency, cold heartedness, carefree non-planfulness, fearlessness, blame externalisation, impulsive nonconformity and stress immunity.

The self-compiled demographic-risk questionnaire includes items frequently found in literature relating to demographic variables and was adapted from the Level of Service Inventory-Revised (LSI-R) (Andrews & Bonta, 1995). The questionnaire consists of 20 items used to gather demographic information from the participants.

1.4.4 Ethical considerations

This study was conducted in accordance with the Code of Ethical Conduct of the South African Professional Board of Psychology. Permission was sought from the ethics committee of the University of the Free State (UFS-EDU-2012-0052). A brief description of the purpose of the research was presented to the participants to allow them to make an informed decision about their participation in the study. Participation was voluntary and informed consent was obtained from each participant before completion of the questionnaires. Information gathered throughout the course of the study will be kept confidential and complete anonymity will be

adhered to. Further, a direct application to conduct the study was obtained from the Department of Correctional Services.

1.4.5 Statistical procedures

Descriptive statistics were calculated to determine the prevalence of psychopathy among the incarcerated female offenders. To investigate whether any significant difference in mean scores in psychopathic traits scores for the demographic variables exists, MANOVA analyses (Howell, 2007) was used. In order to investigate the practical significance of the results, effect size (d) was also conducted.

1.5 Clarification of Terms

1.5.1 Psychopathy

Psychopathy as defined by one of the pioneers of the field, Robert Hare (1991; 2006), is a personality disorder characterised by a persistent disregard for social norms and conventions, impulsivity, unreliability and irresponsibility, lack of empathy, remorse and emotional depth, and failure to maintain enduring attachment to people, principles or goals.

1.5.2 Psychopathic trait

A trait is defined as "a distinguishing quality or characteristic" (Oxford University Press, 2013). Hare and Neumann (2008) explain that psychopathy can be seen as a collection of personality and behavioural traits that vary along a range of affective, antisocial, interpersonal and lifestyle facets. The psychopathic traits to be evaluated include: machiavellian egocentricity, social potency, cold heartedness, carefree non-planfulness, fearlessness, blame externalisation, impulsive nonconformity and stress immunity (Lilienfeld & Andrews, 1996).

1.5.3 Demographic variables

Offender characteristics are used synonymously with demographic variables in literature and so were determined following the title registration and thus for the purpose of this study, and the study will therefore be referring to demographic variables rather than offender characteristics. Demographic variables include any attributes that the examiner ascribes specifically to the unknown person or persons responsible for the commission of particular criminal acts, including those that are physical, psychological, social, geographical or relational (Turvey, 2012). The demographic variables to be used in this study include: criminal history, education and employment, financial, family and marital, accommodation, leisure and recreation, companions, alcohol and drugs, emotional, personal, attitude and orientation (Andrews & Bonta, 1995).

1.6 Outline of Chapters of the Dissertation

This dissertation is comprised of 5 chapters and 4 appendices. In chapter 2, the variables forming the base of the study are conceptualised and the literature is reviewed on psychopathy and demographic variables. Chapter 3 describes the methodology implemented to obtain the results of the study. Included in this chapter is the research design, objectives, participation, data gathering procedures, measuring instruments and the statistical analysis. Chapter 4 represents the research findings. Chapter 5 concludes the study and serves as a summary of the perspectives drawn from the literature, research results, the limitations of the study and recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

The aim of chapter 2 is to conceptualise the problem against related research and to provide knowledge about the topic investigated. The background provided serves to explain the context of the problem, which establishes the need for this research. Three main topics are clarified, namely female offending, psychopathy and demographic variables. These themes are integrated to provide a context specifically focusing on the essential demand for research on female offenders.

2.2   Conceptualisation of topics under investigation

2.2.1   Trends in female offending

Existing literature on criminality has revealed that little attention has been paid to female offenders and the majority of research has focused on male offenders (Blanchette & Brown, 2006; Evans & Jamieson, 2008; Salvatore, Taniguchi, & Welsh, 2012). This could be attributed to a misconception that fewer females are involved in criminal behaviour and, hence, discerning this misconception through first exploring the international and local trends of female offending.

In 2013 the Ministry of justice across England and Wales reported that the number of women in correctional centres by the end of June 2013 amounted to 3853 and an increase of 27% was also noted between 2000 and 2010. In America the total number of incarcerated women rose from 93504 in 2000 to 111387 in 2011 (Carson & Sabol, 2012).

Former correctional Minister of South Africa (2009-2012), Nosiviwe Mapisa-Nqakula commented, "Women represent the fastest-growing category of offender population in our

country. It is for this reason that we have started to pay a bit more attention to the issues surrounding women in conflict with the law" (Prince, 2011).

The Times Live published an article in 2011 by Chandré Prince which confirms that there is a rise in the total number of female offenders, both sentenced and unsentenced, across South Africa. These statistics indicate a substantial rise in the total number of female offenders across South Africa, reaching 3703. The total number of incarcerated women rose from 3406 in 2006 to 3703 in 2011 (Prince, 2011).

The above-mentioned statistics confirm a clear rise in female offending both internationally and locally. Although it appears that males tend to commit more crimes than females, the uniqueness of women and the typical crimes that they commit require a different approach. It therefore becomes important to explore the difference in the types of crimes both males and females commit.

2.2.2   Types of crimes committed by male and female offenders

Various studies as shown below display the different types of crimes males and females commit. Men tend to offend at much higher rates than women for all categories of crime, except for prostitution (Schwartz & Steffensmeier, 2008). Women are far less likely than men to be arrested for violent crimes and are more likely to be arrested for prostitution and larceny/theft (DeJong, Cole, & Smith, 2012). Women are more likely to commit shoplifting than men and tend to engage in shoplifting alone and against individuals with whom they share no relationship (Armentrout, 2004; Zaplin, 2008). Both men and women are profoundly involved in substance abuse and minor property offences (Schwartz & Steffensmeier, 2008).

Female offenders are more likely to be associated with crimes such as theft, robbery, burglary, fraud, production, supplying and intention to sell drugs and handling of stolen goods (Jeffcote & Watson, 2004). Dr Freda Adler explained that typical female crimes include the abandonment of newborns, burglary, shoplifting and drug possession (Armentrout, 2004). Men on the other hand are more probable to commit violent acts such as homicide and rape (Singh, Sinnott-Armstrong, & Savulescu, 2013).

The article by Prince (2011) further documented that the top crimes committed include fraud, money laundering, theft and shoplifting and accounted for 1667 of the incarcerated women mentioned. Following that number was aggressive crimes, which included aggravated assault and murder, accounting for 1378 of the incarcerated females.

Prince (2011) documented that the Department of Correctional Services' statistics indicate an increase in the number of economic crimes committed by women in 2006 from 1211 to 1667, within 5 years. Aggression crimes decreased in the same time period from 1606 to 1378. Sexual crimes, including the possession of pornography, solicitation and accomplices to rape, increased only marginally from 25 to 38. Drug related crimes increased to 372 from 312, while crimes not classified showed a decrease from 253 to 249. The number of women serving a life in prison sentence increased from 73 in 2006 to 113 in 2011.

With the significant increase in crime among women both internationally and in South Africa, it continues to be of need to understand the reasons behind this escalation. Part of the problem could be comprehended through understanding the reasons why women commit crime and hence it becomes crucial to focus on the theories of female criminality.

2.2.3   Theories on female criminality

Many theories have hypothesised that females engage in criminal behaviour as a result of unresolved psychological complications or because of their sexuality. A serious deficiency has been noticed in recent years with regard to the focus on the social, economical and political factors, which lead women to commit crime (Williams, 2004). The theories subsequently discussed explain why women are driven to commit criminal acts.

The foremost theories on criminality have been developed to describe male criminality and the enquiry has been made recently about whether such theories can be used to describe female criminality (Schwartz & Steffensmeier, 2008; Zaplin, 2008). Arguments have been made that traditional and social process theories can be viewed as gender neutral and can thus be used to understand male and female criminality.

2.2.3.1 Social process theory

Social process theory examines how social influences such as religion, politics and family dimensions change individuals over time. The social process theory investigates how the environment leads individuals to commit crime (Vito & Maahs, 2011).

2.2.3.2 Differential association theory

Differential association theory developed from the work of Edwin Sutherland and debates that people learn behaviours through intimate personal contact with those around them, like family and friends. The theory postulates that individuals thus learn to engage in criminal acts as a result of the interactions with those around them who commit crimes (Akers & Jensen, 2011; Entorf & Spengler, 2002).

2.2.3.3 Labelling theory

Labelling theory originated with the work of George Herbert Mead. He argues that having the label of 'criminal' or 'deviant' can lead to new problems raised from undesirable stereotypes, which in turn can lead individuals to commit crimes (Bernburg, 2009).

2.2.3.4 Traditional theories and Chicago School of Criminality

Traditional theories explain that crimes are committed due to poor education, low income and minority status (Schwartz & Steffensmeier, 2008). Closely following the influences of traditional theories, the Chicago School of Criminality views urban neighbourhoods with extremely high levels of poverty as the main reason for crimes being committed. The theories state that these circumstances often lead to breakdowns in social structures further strengthening an individual's inclination to commit crimes (Paynich & Hill, 2009). They also explain that associations with older, more experienced criminals can influence individuals to commit crime (Schwartz & Steffensmeier, 2008).

The above-mentioned theories are seen as gender neutral and can be used to describe both male and female criminality. The following theory that is discussed focuses solely on the nature of female criminality.

2.2.3.5 Feminist theory

Feminist theories have donated to our understanding of the female offender rather than just contrasting them to men. Such theories serve as an explanation of the situations women and girls find themselves in while attempting to survive. This theory explains that women commit crimes because they struggle to survive socially and economically within legitimate means and thus come into contact with the criminal justice system (Bloom, Owen, & Covington, 2004).

The work of feminist theories originated from the research of Dr. Freda Adler (Armentrout, 2004). According to her theory, women commit crimes due to opportunity and accessibility intrinsic to a number of situations and these situations are most often influenced by women's socio-economic status. Dr. Adler further explains that physical limitations can possibly affect the role women play in certain crimes due to their lack of strength. As an explanation Dr Adler mentions how women tend to use poison in the commitment of murder and typically engage in crimes such as prostitution, fraud and theft (Armentrout, 2004).

The major theory used to describe female criminality has focused on the uniqueness of the female offender and the environments and situations that lead her to commit crime, predominantly focusing on the socio-economic status of these individuals. In continuing with the distinctiveness of the female offender, it is important to consider the characteristics inherent to women who commit crime.

2.2.4 Characteristics of female offenders

In the following section a discussion of the characteristics of female offenders include an investigations into the demographic variables, mental health factors, victimization and finally drug and alcohol use. These characteristics are vital in understanding the typical female offender.

2.2.4.1 Demographic variables

The typical female offender tends to be young, a person of colour, a single parent and socio-economically challenged (Bloom et al., 2004). Economic marginalisation is often the indicating factor of the age at which an adult female begins to commit crimes. At roughly the age of 30 females are incarcerated for criminal acts due to their lack of skills to sufficiently support their families (O'Brien, 2002). A study conducted by the Drug Use Careers of Offenders Group (DUCO) by Nick Turner found in an Australian female offender sample in 2005, that the age of the offenders ranged from 19 to 55 years old with an average age of 33.5 years. Three quarters of the women who were interviewed in the study reported having children and one in five had completed high school. Women who are prone to committing criminal acts also exhibit a variety of mental health disorders.

2.2.4.2 Mental health factors

The psychology of why females become offenders has only recently become an interest in research. In such studies it has been found that a high comorbidity exists between crime and mental health problems, particularly in young women (Espelage et al., 2003). Calhoun (2001) discovered high prevalence of stress, anxiety, low self-esteem and depression among female offenders presenting over their lifespan. The study by Nick Turner found that in an Australian female offender sample mental health issues were frequently reported, including depression, anxiety and stress. Over three quarters of the offenders reported that the mental health issues identified had interfered with their lives six months prior to their arrest. Together with the high comorbidity of mental health problems, sexual and physical victimisation has been commonly been documented in the history of female offenders.

2.2.4.3 Sexual and physical abuse

Dixon, Howie, and Starling (2004) compared female offenders to non-offenders and found that 49% of the offender sample reported having been physically abused at some point in their lives. In the study, 50% of the offender sample reported sexual abuse, compared to the

6% found in the non-offender sample. Further it was found that 30% of the offender group reported violent abuse, while only 4% of the non-offender group reported such acts. The study furthermore found that 30% of the offenders reported having witnessed domestic violence. The study by Nick Turner (2005) found in the Australian female offender sample that during childhood over three quarters of the women reported emotional abuse, two-thirds reported physical abuse and one-third reported sexual abuse.

Although physical and sexual abuse are important predictors of engagement in criminal acts, studies such as Kane and DiBartolo (2002) have found other factors, such as drug and alcohol abuse, that indicate an inclination to commit crimes.

2.2.4.4 Drug and alcohol abuse

Drug and alcohol abuse problems are increasingly dominating a proportion of the female offender group. Kane and DiBartolo (2002) found that 63% of the incarcerated female sample reported drug abuse and 80% reported alcohol related problems.

The study by Nick Turner (2005) found in an Australian female offender sample that women commonly reported drug use, with 35 of the 42 individuals indicating the use of cannabis prior to their arrest. Amphetamine was the second-most-used substance and 30 of the individuals reported use thereof, while 18 individuals reported using this substance in the six months prior to their arrest. Benzodiazepine use was reported by 27 of the individuals. A total number of 22 individuals reported the use of heroin and 15 reported the use of the substance six months prior to their arrest. It was indicated by 33 participants that alcohol abuse was frequent, while 25 reported alcohol use six months prior to their arrest. Out of the total of 42 women, 30 reported having purchased drugs at some point in their lives, while 22 of the 38 (out of the 42) who responded reported that they had been under the influence of the substance while committing the crime.

The above-mentioned characteristics provide a richer overview of female offenders. Psychopathy has remained an important variable in understanding criminal behaviour, although it remained an unexplored topic, particularly among female offenders. Literature has well documented the relationship between criminality and psychopathy (Dhingra &

Boduskez, 2013; Graave, 2007; Simourd & Hoge, 2000). Another factor is that the overall focus of research on psychopathy has primarily involved male samples, while relatively little research has examined female psychopathy (Bartol & Bartol, 2012; Wynn et al., 2012).

The fundamental characteristics of psychopathy continue to be uninvestigated despite the growing number of studies focusing on females (Forouzan & Cooke, 2005). In order to gain a better understanding of psychopathy it is necessary to investigate the causes and constructs of the disorder and to examine the documented relationship between psychopathy and crime.

2.2.5   Psychopathy

2.2.5.1 Causes of psychopathy

Despite the growing body of literature, the sole causes of psychopathy and psychopathic violence still remains unclear in the mental health and social fields (Gunter, Vaughn, & Philibert, 2010). Recent years of research have predominantly viewed a genetic predisposition as an essential part of its formulation and environmental factors as determinant to the course and presentation of the disorder (Blonigen et al., 2005). Arguments have stemmed from biological/genetic, neurological, evolutionary and environmental sources (Blair et al., 2006; Blonigen et al., 2005; Glenn & Raine, 2009; Vien & Beech, 2006).

There is emerging evidence suggesting that genetics may play a role in the development of psychopathy (Blonigen et al., 2005; Viding, Blair, Moffitt, & Plomin, 2005). Gunter et al., (2010) found that literature suggests that a genetic factor is as important as environmental and social factors and that psychopathy may well be inherited. Numerous studies have found an approximation that 40% to 70% of psychopathy is due to genetic effects (Taylor, Loney, Bobadilla, Iacono, & McGue, 2003; Viding et al., 2005; Waldman & Rhee, 2006). Loney, Taylor, Butler and Iacono (2007) noted that the disorder is relatively stable over the course of a lifetime.

Psychopathy cannot be solely understood as a result of only one influence (Wynn et al., 2012). Substantial research has indicated a genetic factor (Blair et al., 2006), which in turn influences the structural developments of the neurological system and factors such as

temperament and core characteristics of an individual. These developments in turn have a substantial interaction with the environment and society (Forsman, 2009).

The current trend of research focused on psychopathy has looked into the neurophysiological factors in determining behaviour (Vien & Beech, 2006). Research conducted by biologists, geneticists and neuroscientists have viewed physiological defects of the brain as one of the potential causes for psychopathy, particularly the areas of the brain responsible for controlling emotions and impulse control (Weber, Habel, Amunts, & Schneider, 2008). Two main levels of the neural system have been identified in the study of psychopathy, namely the amygdala and the orbital frontal cortex. Both these areas act as information processing systems and delineation leading to deficits in information processing has been implicated in psychopathy. Blair (2003) has indicated substantial evidence for amygdala dysfunction in individuals with psychopathy. Studies have confirmed the association between psychopathy and amygdala dysfunction as one of the core neural system implications (Blair, 2003). Frontal lobe dysfunctioning has been associated with psychopathy in particular, as the disorder is associated with both instrumental and reactive aggression (Frick, Cornell, Barry, Bodin, & Dane, 2003). Although these dysfunctions may not necessarily be the primary cause of psychopathy, there are clear indications of the presence of frontal cortex dysfunctions in individuals with psychopathy.

Researchers have investigated the indication that psychopathy may symbolize an evolutionary strategy involving mainly 'cheating behaviour' (Crawford & Salmon, 2002 as cited in Glenn & Raine, 2009). These 'cheating behaviours' include acts like rape, homicide, and theft, which allow psychopathic individuals to gain resources, power, status and the ability to genetically pass on the genes with little effort (Glenn & Raine, 2009). From this perspective the emotional, behavioural and cognitive aspects of psychopathy are viewed as mechanisms, which served as a social tactic in human evolution (Crawford & Salmon, 2002 as cited in Glenn & Raine, 2009). Certain facets of psychopathy such as manipulation, the lack of empathy, callousness, instrumental aggression and engaging in risk taking behaviours have been attributed to the evolutionary strategy of 'cheating' as ways of gaining advantage.

A considerable number of mental health practitioners have looked at how the environment plays a role in the development of psychopathy. Studies have examined how environmental factors may influence the behavioural presentation of the disorder, but is not believed to be a

primary cause (Blair et al., 2006). The environmental factors considered included unstable, unhappy childhood environments, a lack of affection and parental rejection. Further disruptions in the family and inconsistent discipline were found to be predictors of adult criminal behaviours (Chen, 2008; McCord, 1997). Many psychopathic individuals exhibit behavioural problems at an early age, such as substance abuse, theft, persistent lying and vandalism (Hare, 2011). Psychopathy as a disorder is made evident by a number of behavioural traits as is seen below.

2.2.5.2 Psychopathic traits

Psychopathy is made apparent by means of specific traits. These traits define adult psychopathy, but may begin to manifest in early childhood (Babiak et al., 2010). The traits examined in this study include machiavellian egocentricity, social influence, cold-heartedness, carefree non-planfulness, fearlessness, blame externalization, rebellious non-conformity and stress immunity. Schwartz and Steffensmeier (2008) have found evidence that psychopathic traits are inherited to a degree but are also influenced by the environment.

According to Fullam, McKie, and Dolan (2009), each of these traits can be described as follows. Machiavellian egocentricity is characterized by 'looking out for one's own interests before others'. Social influence is the 'ability to be charming and influence others'. Cold-heartedness is the 'propensity towards callousness, guiltlessness and unsentimentality'. Carefree non-planfulness, is the 'non-planning component of impulsivity'. Fearlessness is seen as the 'absence of anxiety and harm concerning eagerness to take risks'. Blame externalization is the 'tendency to view others as sources of problems'. Rebellious non-conformity is seen as 'reckless lack of concern for social morals'. Stress immunity is the 'absence of marked reactions to otherwise anxiety-provoking events'. Certain psychopathic traits, such as lack of empathy, grandiosity and impulsivity, increase the prospect that psychopathic individuals will engage in criminal behaviours (Dhingra & Boduskez, 2013) and thus the next section reviews the relationship between psychopathy and criminality.

2.2.5.3 Psychopathy and criminal behaviour

Empirical research has suggested that psychopathy is a prediction of criminal behaviours (Dhingra & Boduskez, 2013). Support has also been found that the violent acts performed by psychopathic offenders are instrumental in nature. Research has found that the instrumental violence may be due to the interpersonal affective traits of psychopathy. Harris, Skilling, and Rice (2001) have described psychopathy as one of the most significant disorders in the criminal justice system. Moltó, Poy, and Torrubia (2000) discovered that psychopathic offenders begin offending at an earlier age than non-psychopathic offenders. Moltó et al. (2000) also found that psychopathic individuals tend to commit more types of crimes and are at a higher risk of committing institutional misconducts. Simourd and Hoge (2000) found that psychopathic individuals tend to take greater pride and sentiment in their antisocial behaviours. DeLisi et al., (2013) found that psychopathic individuals reoffender more quickly, more severely and more productively upon release. The victims of psychopathic crimes tend to be strangers, as opposed to family members with non-psychopathic individuals (Häkkänen-Nyholm & Hare, 2009; Weizmann-Henelius et al., 2002). Wong and Hare (2005) found that psychopathic offenders are more impervious to therapy than non-psychopathic offenders. Dhingra and Boduszek (2013) found that psychopathic offenders tend to be more likely to use threats of violence and make use of weapons in their crimes and are inclined to be more motivated by retribution and vengeance.

Estimates of prevalence of psychopathy in the general population are about 1%, whereas in the adult male correctional centre population estimates range from 15%-25% (Bartol & Bartol, 2012). Simourd and Hoge (2000) conducted a study among a violent adult offender population and found 11% prevalence. Researchers have attempted to explain the complex relationship between psychopathy and criminal behaviour. Harris, Rice, and Comier (1991 as cited in Graeve, 2007) found psychopathy to be the strongest predictor of recidivism. Accordingly, psychopathy more strongly predicts recidivism than background, demographic, and criminal history combined. The recognition of psychopathy can help prevent offenders from being re-arrested after release from correctional centres, which is a critical aspect given the surge in correctional centre entries and releases (Graeve, 2007).

Campbell, Porter and Santor (2004 as cited in Graeve, 2007) concluded that a violent and versatile criminal history was positively associated with the clinical diagnosis of

psychopathy. Psychopathy is associated with aggression and antisocial actions, however not all psychopathic individuals are criminals. Psychopathic offenders tend to be more aggressive than other offenders (Babiak et al., 2010). With the increasing interest in females, it is fundamental to look at how women exhibit psychopathy in contrast to males.

2.2.6   Female vs. male psychopathy

A review of existing literature reveals that although the occurrence of female psychopathy is slightly lower when compared with their male counterparts, female psychopathy is nevertheless a noteworthy problem to investigate (Bartol & Bartol, 2012).

Previous literature has suggested that little focus has been placed on the assessment, associations and causes of psychopathy in women (Cale & Lilienfeld, 2002). Bartol and Bartol (2012) have found statistically lower rates of psychopathy for women, compared to men, and have further found a lack of attention to the extent to which women exhibit psychopathy.

Sutton, Vitale, and Newman (2002) predicted that men and women exhibit psychopathic traits in different ways and that similar emotional deficits are not found between the two genders. A later study by Bartol and Bartol (2012) discovered that females tend to exhibit a severe lack of long term goal planning, show elevated inclinations for sexual promiscuity and tend to engage in a greater range of criminal acts (Vitale & Newman, 2001). In similar studies it was further found that women tend to be more inclined to present with higher levels of callousness and lower levels of empathy than men (Jackson et al., 2002; Rogstad & Rogers, 2008).

The studies, thus far mentioned, have found that female psychopaths are inclined to be less aggressive and violent in their acts than male psychopaths. Bartol and Bartol (2012) found from existing literature that women who display with psychopathic traits tend to recidivist much less often than men. Nesca, Dalby, and Baskerville (1999) discovered that female psychopaths have an earlier onset of substance abuse, antisocial acts and aggressive behaviours than those who are not psychopathic. It has been seen in psychopathic females who show elevated signs of manipulation, that they are inclined to participate in self injuring

behaviours, tend to run away from home and are prone to commit economic criminal acts such as fraud and theft (Forouzan & Cooke, 2005).

Psychopathic traits are found to present more often in adolescence among females, while in men the traits tend to manifest in childhood. Verona and Vitale (2006 as cited in Patrick, 2005) have found that psychopathic women who present with the disorder in early adulthood are inclined to express forms of aggression in ways such as verbal attacks, jealousy, self-harm and manipulation. Female psychopaths frequently display similar expressions of certain psychopathic traits, as is found in males however, the onset for women manifests later (Verona & Vitale, 2006 as cited in Patrick, 2005). Female psychopaths tend to engage in behaviours such as emotional instability, verbal violence and manipulation of their social networks (Dolan & Völlm, 2009). Psychopathic men tend to display their aggression through physical violence, whereas women are prone to display their aggression through oral and interpersonal forms (Warren, Burnette, & South, 2003). The writers further found common comorbid cluster B personality disorders in females who present with psychopathy.

Psychopathy literature has generally found lower rates for women as opposed to men (Vitale & Newman, 2001). Similar rates have also been found for the prevalence of antisocial personality disorder as well as conduct disorder (Walsh, O'Connor, Shea, Swogger, Schonburn, & Stuart, 2010). As is found with all psychiatric disorders, the base rate for psychopathy has varied across studies (Häkkänen-Nyholm & Nyholm, 2012). John, Robins, and Pervin (2010) found that psychopathic men make up 3% to 4% of the general population, while women only account for 1%. Bartol and Bartol (2012) found in correctional centre population that psychopathic men make up 25% to 30% of the total population, while female psychopathic offenders make up 15.5%. Vitale, Maccoon, & Newmann (2011) found similar prevalence rates among research, with incarcerated males making up 15%-30% of the population, while female offenders displayed rates between 11% and as low as 9%. Studies have found that among female offenders the prevalence rates of psychopathy were between 10% and 20% (Hare, Clark, Grann, & Thornton, 2000; Vitale, Smith, Brinkley, & Newman, 2002; Warren et al., 2003; Weizmann-Henelius et al., 2002). It has been the difference in prevalence rates, among other things, that has contributed to the lack of research interest in psychopathy among women.

2.2.7   Demographic variables and psychopathy

Studies have clearly illustrated that a relationship between psychopathy and certain demographic variables exists, however, these studies have, once more, primarily been limited to the male populations (Brody & Rosenfeld, 2002; Verschuere et al., 2011).

A study investigating psychopathic features by Vaughn, Newhill, DeLisi, Beaver, and Howard in 2008, found among 94 delinquent girls that 70.2% of the responders were white, while 29.8% of the sample non-whites (primarily African American). The respondent residence representation included 41.5% urban, 12.8% suburban, 39.4% small town and 6.64% rural or countryside and the mean age for the sample was 15.4 years.

Vitacco, Neumann, Ramos, and Roberts (2003) found that poor parental monitoring and inconsistent parenting significantly predicted narcissism and impulsivity factors among a sample of 136 Hispanic adolescent females, but inconsistent parenting was a stronger predictor than poor monitoring.

A study by Garcia, Moral, Frias, Valdivia, and Diaz in 2012 examined the family and socio-demographic factors in 178 psychopathic male inmates. The authors found that factors such as gender, academic failure, low socio-economic status, minority status, school violence, family disintegration and the presence of gangs in neighbourhoods are all risk factors that might contribute to psychopathy.

Campbell et al. (2004 as cited in Graeve, 2007) concluded that a violent and versatile criminal history was positively associated with the clinical diagnosis of psychopathy. Vaughn and DeLisi (2008) found evidence that personality and psychopathic traits have a greater effect in predicting career criminality than demographics or comorbid mental health problems. The aforementioned authors found that psychopathic traits account for 42% of relapse in career criminality. Graeve (2007) found that psychopathic traits could predict the engagement of career criminality with an accuracy ranging from 70% to 80%.

The literature reviewed thus far has highlighted the limited interest in female offenders and subsequently the limited focus on female psychopathy. Psychopathy has been clearly linked to certain demographic variables and criminality and can be an important predictor in future

criminality and relapse. As mentioned earlier, the identification of psychopathic individuals has important implications within the justice system. With this in mind, the chapter concludes with the final remarks and reflects on what has been discovered from the literature.

2.3 Concluding remarks

From the discussion above it is evident that female criminality and female psychopathy is relatively unexplored in research, which has placed primary focus on males. There are multiple variables that contribute to the etiology of psychopathy and numerous demographic variables that are associated with the disorder. These elements have provided the rationale and context for conducting the research and the next chapter explains the methodology implemented to obtain the results of the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1   Introduction

In this chapter the research methods used to gather and analyse the psychopathic traits and demographic variables among female offenders in a South African correctional centre are discussed. This section includes an explanation of the research design and approach, research objectives, research participants, data collection procedures, ethical considerations, the measuring instruments used, as well as the statistical analysis implemented to determine the results of the study.

3.2   Research design and approach

A research design refers to a plan for collecting evidence used to answer a specific research question (Vogt, 2007). A quantitative, non-experimental research method (Clark-Carter, 2009) was implemented to answer the research questions for this study. A criterion group design was used and the data was analysed through use of descriptive statistics, MANOVA analyses (Howell, 2009) and effect size.

3.2.1   The nature of quantitative research

Quantitative research is an empirical instrument using numerical and quantifiable data (Ernst, 2003; Clark-Carter, 2009). Initially designed within the natural sciences to study naturally occurring phenomenon, it places focus on the measure of variables observed in participants (Henning, van Rensburg, & Smith, 2004).   This type of research dominated within psychology between 1890 and 1912 when behaviourism began to emerge as a prominent field (Willig & Stainton-Rogers, 2007).

Quantitative research typically begins with choosing a topic of interest and with deriving a research hypothesis (empirical question) from a statement of theory (Bryman & Bell, 2011;

Goodwin, 2009). A research design is then established to measure the variables explored (Bryman & Bell, 2011). Conclusions are then drawn based on observations or experimentation (Belli, 2009; Barkway, 2009). Thus this form of research can be divided into non-experimental (observation) and experimental (Belli, 2009; Clark-Carter, 2009).

A quantitative research design was used, since the use of questionnaires gives numerical and quantifiable data. The use of this form of research was also promoted as the variables, psychopathic traits and demographic variables were merely observed within the participants. Additionally, quantitative research was applied due to the nature of the aims and objectives of the study focusing on the identification of individuals presenting with psychopathic traits, and subsequently to determine the prevalence of psychopathy.

Non-experimental research involves studying specific variables as they are without manipulation from the researcher (Belli, 2009). A non-experimental research method was used to examine the variables, psychopathic traits and demographic variables, as they exist within the sample, free of any experimentation. A variable is any characteristic, which may differ among people and might assume many different values (for example, age) (Belli, 2009; Mooney, Knox, & Schacht, 2013). The completion of questionnaires as the method of data collection further urged the use of a non-experimental research method.

3.3   Research objectives

The following research objectives were the focus of the study:

- To describe the female offenders at the correctional centre in terms of certain demographic variables

- To discuss the prevalence of psychopathy in this group of female offenders

- To investigate possible differences in psychopathic mean scores regarding some demographic variables of female offenders

In the study the female inmates' psychopathy score served as the dependent variable, while their demographic information served as the independent variables.

3.4   Research participants

A population refers to any group of people who share common characteristics, for example, area, age, gender, etc. (Nicholas, 2009). In this study the population refers to incarcerated female offenders at South African correctional centres.

Nicholas (2009) defined sampling as a process of selecting a sample (small group) from a population of interest in order to justly generalise the results of the sample to the population from which they were taken. Literature describes two main methods of sampling namely probability and non-probability sampling (Polit & Beck, 2013).

The sample of research participants consisted of 100 female offenders at the Kroonstad correctional centre and was drawn making use of nonprobability, convenience sampling (Salkind & Rasmussen, 2007). Of the total sample, 19 of the women had not yet been sentenced for the crimes for which they were detained in the correctional centre and thus their data could not be included in the analysis.

Nonprobability sampling selects elements by employing nonrandom methods and there is no manner in which to determine the chances of inclusion. Four main methods of nonprobability sampling exist, namely, convenience sampling, quota sampling, snowball sampling and purposive sampling (Polit & Beck, 2013). Convenience sampling according to Creswell (2012) and Gravetter and Forzano (2012), involves the inclusion of individuals who are easily available and willing to take part in a research study (Howitt & Cramer, 2000).

Nonprobability, convenience sampling was implemented to achieve the aims and objectives of the study and to reach the participants of the study as their circumstances allowed; namely, those who were available and willing to participate in the study at the correctional centre.

3.5   Data collection procedure

During 2013 the data was collected from a group of female offenders at the Kroonstad correctional centre in the Free State. At the time, all of the inmates were serving a sentence for different crimes that they had committed or were awaiting trial. At the onset of the study, no exclusion criterion had been set. However, during the interactions with the inmates it became clear that many of the women had not been sentence for their crimes yet. As a result, these women were excluded from the study and the data could not be used during the analysis. From the 100 female offenders who volunteered to partake in the study, a final number of 81 women's data was used for the study. Participants provided written informed consent and volunteered to be a part of the study. A trained psychology Master's students and a trained registered psychologist obtained informed consent and assisted in the completion of the questionnaires. Instructions regarding the completion of the instruments were given to the participants verbally.

The questionnaires used were only available in English. As a result a fellow Master's student was approached to verbally translate the questionnaires for the participants into Afrikaans, while the psychologist at the correctional centre assisted in the verbal translation into Sesotho, on the two days of data collection.

3.6   Ethical considerations

This study was conducted in accordance with the Code of Conduct of the South African Professional Board of Psychology. Approval to conduct this study was obtained from the ethics committee of the University of the Free State (UFS-EDU-2012-0052). The Department of Correctional Services also provided consent for the collection of data at the Kroonstad correctional centre. Participation was voluntary and informed consent was obtained. Information gathered throughout the course of the study was kept confidential and complete anonymity was adhered to.

3.7 Measuring instruments

The most widely used measuring instrument for psychopathy remains the Psychopathy Checklist (PCL, 1991; 2003), however, this measuring instrument consists of semi-structured interviews, requiring extensive training and is extremely time consuming (Loots, 2010). Due to the aforementioned reasons and the nature of the study, the Psychopathic Personality Inventory Revised (PPI-R) was used as an alternative measure. Making use of a self-report measure allows for reduced time and financial aspects and allows for objective reporting often not found in interviews (Lilienfeld & Fowler, 2006). The measuring instruments will now be discussed.

3.7.1 The Psychopathic Personality Inventory Revised (PPI-R)

The Psychopathic Personality Inventory-Revised (PPI-R) (Lilienfeld & Andrews 1996) is a self-report measure consisting of 154 items measuring the component traits of psychopathy and global psychopathy. Items of the PPI-R are rated on a 4-point Likert scale (False, Mostly False, Mostly True and True).

3.7.1.1 Reliability and validity of the PPI-R

The PPI-R has been standardised and validated for individuals aged 18-89 years (Lilienfeld & Andrews 1996). A Cronbach's Alpha Coefficient of the total score in an international study among a population of American male adult offenders has been found to be .91 and the subscales range from .72 -.91 (Poythress, Edens, & Lilienfeld, 1998). Tadi's (2013) study among South African males found the alpha coefficient to be .76.

3.7.1.2 Subscales of the PPI-R

The test is arranged into eight sub-scales, namely, Machiavellian, egocentricity, social influence, cold heartedness, carefree non-planfulness, fearlessness, blame externalisation, rebellious nonconformity and stress immunity. The subscales as discussed below are explained in the manual of the PPI-R (Lilienfeld & Widows, 2005).

Subscale one: Machiavellian egocentricity

The subscale consists of 20 items that reflect the tendency for people to take advantage of others, to bend the rules, to see oneself as superior to others and the inclination to lie for the advancement of oneself. The scale measures the extent to which people view human nature as pessimistic and harsh and the willingness of the individual to manipulate others for their own purposes.

Subscale two: Social influence

The subscale measures the ability to be engaging and charming and the capability to influence others. The 18-item scale reflects verbal fluency and the freedom from social anxiety of individuals and also looks at the inclination towards oneself as self-assured.

Subscale three: Cold heartedness

The measure consists of 16 items and focuses on the context that people exhibit the absence of social emotions and the inability to demonstrate empathy for others. The scale measures feelings of loyalty, sympathy and guilt.

Subscale four: Carefree non-planfulness

The subscale measures the inability to make alternative plans and the lack of anticipation. The 19-item scale investigates the inability to learn from mistakes and the lack of thought before taking action.

Subscale five: Fearlessness

The subscale consists of 14 items and measures the individual's thoughts of being unafraid of danger and the prospect of being a daredevil. The scale further measures the lack of anxiety related to physical risks and threats.

Subscale six: Blame externalisation

Subscale 6 measures the individuals' tendencies to see himself/herself as victims and his/her failures as a result of evil or bad luck. The scale also measures individuals' view of the world as being hostile and their tendency to blame others for his/her problems.

Subscale seven: Rebellious nonconformity

The 16-item scale measures the thoughtless rebelliousness of social norms and reflects individuals' thoughts of himself/herself as rebels in society.

Subscale eight: Stress immunity

The subscale measures the ability to remain calm in stressful situations and the tendency to be free of nervousness and tension in such situations.

Before analysis could be conducted on the results of the study, an investigation into the internal consistency of the PPI-R was conducted to ensure the validity of the measuring instrument as is shown in Table 1 below.

Table 1

Cronbach's α-coefficients for the subscales and total scale of the PPI-R

PPI-R	α-coefficient
Machiavellian egocentricity	0.744
Rebellious nonconformity	0.642
Blame externalization	0.692
Carefree nonplanfulness	0.678
Social influence	0.629
Fearlessness	0.507
Stress immunity	0.618
Coldheartedness	0.663
Total	0.759

The estimated coefficients in Table 1 show that with the exception of the subscale *fearlessness*, internally consistent measurements that were obtained are acceptable. Although higher reliability would be required for the said sub-scale, it was decided to use *all* the scales in the further analysis. Before the research hypothesis could be investigated an investigation into the skewness and kurtosis of the subscales was conducted.

Table 2

Minimum-, maximum scores, means, standard deviations, skewness and kurtosis of the eight PPI-R scales

PPI-R Scale	N	Minimum	Maximum	$\overline{X}$	Sd	Skewness	Kurtosis
Machiavellian egocentricity	81	21	60	45.62	8.16	-.793	.664
Rebellious nonconformity	81	51	76	64.52	6.08	-.047	-.507
Blame externalization	81	37	64	53.77	5.48	-.691	.566
Carefree nonplanfulness	81	17	53	36.40	6.69	-.144	.019
Social influence	81	28	72	51.12	10.65	-.290	-.522
Fearlessness	81	17	57	37.60	8.68	-.150	-.131
Stress immunity	81	39	72	52.30	7.26	.368	-.226
Coldheartedness	81	22	49	38.01	6.15	-.313	-.365
Total	81	271	455	379.33	43.74	-.287	-.465

Table 2 indicates both the Descriptive statistics and the kurtosis and skewness of scores on the eight subscales of the PPI-R. Scales of which the skewness $> | 2 |$ and / or kurtosis $> | 4 |$, would have been omitted since it is considered unacceptable to be used in further analysis.

3.7.2   Self-compiled demographic risk questionnaire

A *self-compiled demographic-risk questionnaire* was used to measure the various demographic variables of the female offenders. The items included those frequently found in the literature and were adapted from the existing Level of Service Inventory-Revised: Short Version (LSI-R: SV). The questionnaire consisted of 20 items that aided in gathering demographic information on the participants.

The Level of Service Inventory: Short Version (LSI-R: SV: Andrews & Bonta, 1995) is a quantitative survey used to classify offenders in terms of their risk of criminal behaviour and need for treatment. The LSI-R: SV is categorized into the following scales criminal history:

family history, employment history, history of drug/alcohol abuse and marital history. Andrews and Bonta (1995) found the internal consistency to be .54 in an American male inmate and probationer sample. The alpha-coefficient has been found to be .72 (Bonta & Motiuk, 1992). Tadi's (2013) study among South African males finds the alpha coefficient to be .48.

The demographic questionnaire examined many variables, however only certain variables could be used in the statistical analysis in order to be able to make sense of the sample group and, in subsequent analysis, be able to compare the variables with the psychopathy scales. The motivation for which variables to use, was drawn from the prevalent variables found in the literature on the subject. From the search it was determined that the following variables would be used for the analysis: age, home language, education, marital status, primary caregiver, previous arrest records and history of alcohol and/or drug abuse.

In order to perform descriptive statistics in regard to the demographic variables, certain categories of the variables, such as age, home language, education, marital status and caregivers (person responsible for raising you), were grouped together (see table 3). The frequency for each group with their individual items was too low to use each item as a different category and was therefore grouped into two separate categories (i.e. age – less that 31 years and 31 years and older).

3.8   Statistical procedure

Frequencies were calculated to describe the sample group in terms of objectives one and two of the study:

- What demographic variables are present among incarcerated females presenting with psychopathic traits?

- What is the prevalence of psychopathic traits among incarcerated females?

Objective three was statistically investigated by using a multivariate analysis of variance (MANOVA) (Howell, 2009):

- Is there a significant difference in the mean psychopathy scores regarding any of the demographic variables among incarcerated females presenting with psychopathic traits?

Descriptive statistics were calculated to determine the prevalence of psychopathy among the sample. According to Babbie (2010) descriptive statistics can be seen as "statistical computations describing either the characteristics of a sample or the relationship among variables in a sample" (p. 567). Descriptive statistics allow data to be summarised and to numerically describe any point of interest (Gravetter & Forzano, 2012; McNabb, 2013). Descriptive statistics were implemented for this study to allow the data collected on psychopathy to be numerically described, to determine the prevalence of disorder among the participants.

To investigate whether any significant difference in mean scores in psychopathic traits scores for the demographic variables exists, MANOVA (multivariate analysis of variance) analyses (Howell, 2009) were used. MANOVA analyses permit the researcher to examine a set of measures as they represent an underlying construct (Huberty & Olejnik, 2006; Leong & Austin, 2006). According to Howell (2009) a MANOVA analysis would be the most appropriate statistical analysis technique, when including one independent variable and several dependant variables.

Effect size was calculated in order to show the practical importance of the results. According to Howell (2009), "effect size is the standardized difference between two means" (p. 234). An effect size refers to the magnitude of the results as it occurs, or would occur in the population (Ellis, 2010).

For the interpretation of effect sizes with variance analysis, the following guidelines were used $f = 0.1$ small effect, $f = 0.25$ and medium effect $f = 0.4$ large effect (Steyn, 2002). Only when statistically significant results (at the 1% or 5% level) were found, could the corresponding effect sizes be calculated. The SPSS software (SPSS Incorporated, 2011) was used for the analysis.

3.9 **Conclusion**

This chapter described the research design, the objective of the study, the participants and the procedure of data collection, the ethical considerations, the measuring instruments and finally the statistical procedure. The following chapter contains the presentation and discussion of the results.

CHAPTER 4

RESULTS AND DISCUSSION

4.1   Introduction

In this chapter the findings of the study are presented and the results are discussed. Descriptive statistics were calculated to explain the demographic variables of the sample and to determine the prevalence of psychopathy among the sample. MANOVA (multivariate analysis of variance analysis) was implemented to determine whether a significant difference in mean psychopathy scores of the female offenders exists.

The data is represented in the form of four tables namely, Table 3: Frequency distribution of the sample with regard to the demographic variables, Table 4: Distribution of respondents by age group according to the PPI-R cut off score, Table 5: MANOVA F-values of the five demographic variables and finally, Table 6: *F*-value, p-value and effect sizes for testing *primary caregiver*'s effect on the eight PPI-R scales averages.

4.2   Statistical procedure

Frequencies were calculated to describe the sample group in terms of objectives one and two of the study. Objective three, determining the difference in mean psychopathic scores for the female offenders, was statistically calculated by using a multivariate analysis of variance (MANOVA) (Howell, 2009).

If a significant result (*F*-value) of the MANOVA analysis would have been obtained, a univariate analysis of variance would have been performed for each of the variables. If more than two categories regarding an independent variable would have occurred, the Scheffe procedure would be used to determine which of the subgroups' average scores on the dependent variables represent a statistically significant difference.

Effect size was calculated in order to show the practical importance of the results. For the interpretation of effect sizes with variance analysis, the following guidelines were used $f = 0.1$ small effect, $f = 0.25$ and medium effect $f = 0.4$ large effect (Steyn, 2002). Only when statistically significant results (at the 1% or 5% level) were found, could the corresponding effect sizes be calculated. The SPSS software (SPSS Incorporated, 2011) was used for the analysis. The following section will proceed to the results of the study.

4.2.1   Descriptive statistics

4.2.1.1 Descriptive statistics for the demographic variables of the sample

Before the descriptive statistics could be determined for demographic variables of the female offenders, an investigation was conducted regarding the internal consistency of the subscales of the PPI-R. The table (Table 1) containing the results is included in chapter 3: Methodology under the measuring instrument discussion of the PPI-R.

 In relation to the first objective, describing the female offenders at the correctional centre in terms of certain demographic variables, the distribution of the sample with regard to the demographic variables was calculated and is shown in Table 3 on the following page.

Table 3: *Frequency distribution of the sample with regard to the demographic variables*

Variable	N	%
Age		
Less than 31	39	48.2
31 and older	42	51.8
Total:	81	100,0
Home Language		
Sesotho	39	48.1
Setswana	6	7.4
Xhosa	9	11.1
Zulu	6	7.4
Afrikaans	14	17.3
English	6	7.4
Other	1	1.2
Total:	81	100,0
Education		
Less than Grade 12	51	63.0
Grade 12 and higher	30	37.0
Total:	81	100,0
Marital status		
Married	36	44.4
Not married	45	55.6
Total:	81	100,0
Caregiver		
Both father and mother	45	55.6
Father or mother or grandparent	36	44.4
Total	81	100,0
Previously in prison		
No	58	71.6
Yes	23	28.4
Total:	81	100,0
Drug / alcohol problem		
Yes	15	18.5
No	66	81.5
Total	81	100.0

Table 3 presents the demographic variables of the sample group. The demographic variable *age* was grouped into two categories as a result of the frequencies for the individual groups being too low to use separately. Due to this low frequency for the individual categories, the age categories were grouped as being below the age of 31 and being 31 years of age and older, to develop two equally distributed groups. Thus, just under half of the sample fell under the age of 31. A study by Brody and Rosenfeld (2002) investigating psychopathy found corresponding ages in a male sample with the average age being 28.2 years old. Similar results were found among a female offender group where the average age for incarceration was 30 years of age (O'Brien, 2002).

From table 3 the variable *home language* shows a number of sub-categories with low frequencies per category. These categories (with low frequencies) cannot be grouped together to form one category and were thus used as individual categories. The majority of the sample indicated Sesotho as their home language, while the remaining individuals were distributed among the other categories. Statistics South Africa indicated that in 2012, 64.4% of the population of the Free State speak Sesotho, which may be a clarification for the previously-mentioned result.

More than half of the sample indicated that their education did not extend past Grade 11 and only 37% indicating education higher than that or including Grade 12. Various studies continued to show low levels of education being common among the general offender's population, even in South Africa, including female offenders in particular (Bhosle, 2009; Fortin, 2004; Turner, 2005). Low levels of education persist to be prevalent even among female offenders with psychopathy (Graeve, 2007). These studies thus indicate the important link between low levels of education and criminal behaviour. One could probably hypothesise that a lack of education interferes with the ability to access work opportunities, which leads people to consider crime as an alternative means to survive.

In accordance with *marital status*, the frequency of the group was reasonably evenly distributed. This indicates that the sample is split almost exactly in half between the two categories and specifies that the possibility that an individual can belong to this group is equally likely. The U.S. Department of Justice examined a sample of female offenders in 2000 and found that half of the women in state and local correctional centres had never been

married, as was found in this sample group. Studies examining psychopathy and demographic variables have predominantly focused on male samples (Brody, & Rosenfeld, 2002; Verschuere et al., 2011). Studies investigating male psychopathy found that the majority of the samples had never been married (Brody & Rosenfeld, 2002; Graeve, 2007). These studies found significantly higher rates of non-marriage as compared to this study, which found equal rates of marriage and non-marriage. There have however, been numerous studies that have illustrated this link between marital status and criminal behaviour among female offenders (Bhosle, 2009; Suter & Byrne, 2000; Bloom et al., 2004; Stacey & Spohn, 2006).

As with the previously mentioned variable, *primary caregiver* also indicated a rather even distribution. Covington (2002) found that many of the female offenders in their sample were raised by single mothers or were alternatively placed in foster care. The results of the study indicated that just under half of the sample was raised by a single parent or by their grandparents. A study by Campbell et al. (2004) investigating psychopathy among men and women confirmed the results of this study and found that 51.2% were raised by a single parent, while 48.6% were raised by both parents.

The majority of the sample indicated that they had not *previously served time in prison*. A study by the U.S Department of Justice found among the sample that 72% of the women had previously been sentenced to prison for crimes they committed before their current incarceration. Contradictorily, this study found that only 28.4% of the sample had previously served time in prison. Studies investigating psychopathy in males found significant positive associations concerning frequency of imprisonment and psychopathy (Brody & Rosenfeld, 2002; Garcia et al., 2012). This contradiction may be due to women in South Africa being arrested for previous crimes, but not being convicted and subsequently not serving time for the crime.

Drug / alcohol problems indicate the same low frequency, as was found with the variable *home language* and presents an uneven distribution. These results indicate that both categories could not be used for further analysis, since these low frequencies per category are not meaningful in the use of a multivariate statistical analysis. Therefore, the discussion below focuses only on those variables that have shown significant results, as well as an

analysis of variance that was performed on them. The discussion will first focus on the descriptive statistics for the prevalence of psychopathy.

4.2.1.2 Descriptive statistics for the prevalence of psychopathy

Objective two was to investigate the prevalence of psychopathy among the female offenders. Since different cut off points for age groups exist, the prevalence of the various groups was calculated and the results are given in Table 4.

Table 4

Distribution of respondents by age group according to the PPI-R cut off score

Age group	PPI-R cut off score	Frequency	Percentage
18 – 24 years	≥ 323	17	94.4%
	< 323	1	5.6%
25 – 29 years	≥ 315	20	100.0%
	< 315	0	0.0%
30 – 39 years	≥ 308	20	95.2%
	< 308	1	4.8%
40 – 49 years	≥ 300	11	91.7%
	< 300	1	8.3%
50 – 59 years	≥ 293	8	100.0%
	< 293	0	0.0%
60 years and older	≥ 285	1	50.0%
	< 285	1	50.0%

The manual to the PPI-R provides conversion tables for the following female age groups, each with a different cut off score for the global psychopathy score: age 18 to 24 years, 25 to 29 years, 30 to 39 years, 40 to 49 years, 50 to 59 years and older than 60 years. There are different cut off scores for the various age groups, as specified in the PPI-R manual, which are indicated in table 4.

It is clear (with the exception of 60 years and older) that more than 90% of all female offenders in each of the age groups comply with the PPI-R cut off score, which is indicative of psychopathy. The last group consists of only two persons and little can be derived from their findings. These findings are inconsistent with those found in the literature, which indicated prevalence of between 9% and 30% in different female offender samples (Bartol & Bartol, 2012; Grann 2000; Vitale et al., 2002; Warren, et al., 2003; Weizmann-Henelius et al., 2002). This discrepancy could be attributed to the small sample size. As mentioned previously, it was necessary to further continue with the analysis of variables where there were significant results, which is discussed in the section below.

4.2.2   Multivariate analysis of variance analysis

Before MANOVA could be implemented, an investigation into the kurtosis and skewness of the eight subscales of the PPI-R was conducted, which is indicated in Table 2. This analysis was conducted in order to determine the accuracy of the data collected from the PPI-R. The table is included in chapter 3: Methodology under the measuring instrument discussion of the PPI-R.

Consequently, the research hypothesis could be investigated. In order to determine whether significant differences regarding the PPI-R scales and total score for the five independent variables (age, marital status, education, primary caregiver, previously in prison and use of drugs/alcohol) occurs, the MANOVA procedure was performed and the results appear in Table 5.

Table 5

MANOVA F-values of the five demographic variables

Independent variable	*F*-value+	υ	*p*	*f*
Age	0.846	8;72	0.566	0.086
Education	1.855	8;72	0.081	0.171
Marital status	1.000	8;72	0.444	0.100
Raised by primary caregiver	2.871**	8;72	0.008	0.242
Previously in prison	0.430	8;72	0.899	0.046

** $p \le 0.01$

* p $\leq$ = 0.05

+ Hotelling's Trace was used

Table 5 indicates that there are differences in the average PPI-R scales / total score for one of the demographic variables, namely being raised by a *primary caregiver*, and a significant result was found at the 1% level. This significant *F* value indicates a medium effect size so that the findings can be seen as being of average practical significance.

Literature (Garcia et al., 2012) suggests that family disintegration can be a strong contributor to the development of psychopathy and can thus support the findings indicating a significant difference in the mean scores of psychopathy regarding *primary caregiver*.

In order to determine which of the PPI-R-scales / totals show significant differences in means for this demographic variable, a one-way analysis of variance was done. The latter procedure provides an indication as to what subscales/total scores provide significant differences for the relevant demographic variable (being raised by a *primary caregiver*).

Regarding the demographic variable *primary caregiver,* the results of the one-way analysis of variance is indicated in Table 6.

Table 6

F-value, p-value and effect sizes for testing primary caregiver's effect on the eight PPI-R scales averages

PPI-R Scale	Both parents		Father or mother or grandparent		F	p	f
	$\overline{X}$	sd	$\overline{X}$	sd			
Blame externalization	43.18	8.65	48.67	6.39	10.071**	0.002	0.36
Carefree nonplanfulness	63.87	6.38	65.33	5.66	1.164	0.284	
Coldheartedness	53.24	5.47	54.42	5.50	0.913	0.342	
Fearlessness	36.13	6.51	36.72	6.99	0.153	0.697	
Machiavellian egocentricity	49.84	11.98	52.72	8.62	1.466	0.230	
Rebellious nonconformity	36.49	9.36	39.00	7.66	1.685	0.198	
Social influence	52.84	8.27	51.61	5.82	0.573	0.451	
Stress immunity	37.42	6.54	38.75	5.63	0.929	0.338	
Total	373.02	48.91	387.22	35.36	2.138	0.148	

** $p \leq 0.01$

* $p \leq 0.05$

According to the one-way analysis of variance there are only significant differences on the 1% level in relation to the PPI-R scale blame externalization in the averages for the two groups (in terms of *primary caregiver*). This result showed a large effect size that indicates that the results are of practical importance.

The results of this study may indicate that female offenders in South Africa presenting with psychopathy have a tendency to blame others for their behaviour. Blame externalisation was found to be a strong predictor of career delinquency in a study conducted among 723 delinquents (DeLisi et al.,2013).

From Table 6 it is clear that female inmates who were raised by both parents have a significantly lower blame externalization score than those who were raised by one of their parents or their grandparents. This indicates that the female offender individuals, who were raised by both parents, as opposed to one parent or by their grandparents, show on average lower traits concerned with tendencies to blame others for their own problems and lower inclinations to rationalise their own misbehaviour.

Contradictory to the prevalent traits found in the literature, the significance of blame externalisation may be attributed to the parenting environment that the female offenders were exposed to during childhood.

4.3   Conclusion

This chapter reported the results of the study and found that that a relationship is apparent between the mean psychopathy scores and the demographic variable *primary caregiver*. A significant difference in mean scores was found for blame externalisation, which indicates that this trait has significant practical importance in relation to female offenders presenting with psychopathic traits. The next chapter concludes the study by presenting the perspectives from the literature, the conclusion of the findings, the limitations and recommendations for future research.

CHAPTER 5

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the contributions drawn from the literature review, as well as a conclusion of the research findings. The chapter further includes the limitations of the study and concludes with the recommendations for future research and practice.

5.2 Perspectives of the literature

Psychopathy is a well-examined phenomenon particularly among forensic populations, and in clinical and forensic practice is one of the most used constructs of violent risk and treatment (Häkkänen-Nyholm & Nyholm, 2012; Salekin, Worley, & Grimes, 2010). Despite the vast literature, little attention has been given to female offenders and psychopathy (Wynn et al., 2012).

Within the South African context, female offending is increasing and this finding prompted that new attention be paid to this group, supported by former Correctional Minister Nosiviwe Mapisa-Nqakula (2009-2012) (Prince, 2011). Studies on offenders have typically not included females as the main sample, but have rather compared their behaviours and characteristics to those of male offenders (Bartol & Bartol, 2012). The average female offender is often a person of colour and a single parent from a socio-economically challenged environment (Kim, 2003). These women tend to engage in criminal activities at roughly the age of 30 and often exhibit comorbid mental health problems and drug problems (O'Brien, 2002). Female offenders also typically report sexual abuse at some point in their lives (Dixon et al., 2004). Although male and female offenders are often compared to each other, the literature on psychopathy among women is scarce and has typically also focused on comparing women to their male counterparts (Cale & Lilienfeld, 2002). Studies focusing exclusively on women and their presentation of psychopathy are limited.

The prevalence of female psychopathy is significantly lower in comparison to that of male psychopathy (Bartol & Bartol, 2012). Female psychopaths tend to display elevated sexual risk behaviours and lack long term planning (Bartol & Bartol, 2012). Women are typically more callous and less empathetic when presenting with psychopathic traits (Rogstad & Rogers, 2008). Within the forensic context it has been discovered that female psychopaths tend to be less violent and aggressive that male psychopaths (Bartol & Bartol, 2012). Female psychopaths are characteristically manipulative, jealous and engage in self-harming behaviours (Forouzan & Cooke, 2005; Verona & Vitale, 2006).

Existing literature on psychopathy has illustrated a clear relationship between demographic variables and psychopathy (Brody, & Rosenfeld, 2002; Verschuere et al., 2011). Individuals presenting with psychopathy commonly have backgrounds that depict that these individuals have low educational success, are unmarried, have been raised in poor parenting environments with family disintegration, have previously served time in prison and present with comorbid drug or alcohol problems (Brody & Rosenfeld, 2002; Garcia et al., 2012; Graeve, 2007; Vitacco et al., 2003). The study has found typical and atypical results when compared to those found in the literature, as is described in the next section.

5.3 Findings of the study

The study intended to explain psychopathy in terms of the demographic variables and to determine the prevalence of psychopathy among female offenders. It was hypothesised that a significant difference in the mean psychopathy scores of the female inmates would be observed in relation to at least one of the demographic variables.

Prior to the analysis of the data, the alpha coefficients for the PPI-R scales were calculated to ensure internal consistency of the measure. The coefficient for all of the subscales was acceptable, although a low internal consistency was found for the subscale *fearlessness*. Even though a higher reliability would be preferred for the subscale, it was deemed valid to use all of the subscales for further analysis. A reason for this low coefficient may be due to the small sample.

Preceding the investigation into the hypothesis an analysis was conducted into the kurtosis and skewness of the scores of the subscales. The results of this analysis indicated that no scales represented high kurtosis or skewness and signified that the scales were evenly distributed. As a result the data could be further analysed.

Results from the self-compiled questionnaire indicted agreeability and contradictions to the existing literature. The data regarding the demographic variables *age, education and marital status* for the female inmates was consistent with that found in offered literature (Bhosle, 2009). The results of the study and literature have found that the average psychopathic female is typically middle-aged (31 years old), has not completed high school and is unmarried (for various reasons, such as never having been married, being divorced or widowed).

However the literature regarding the variables *time spent in prison* and *prior drug and/or alcohol problems* were inconsistent with current research (Kane & DiBartolo, 2002). The findings in relation to previous terms served in prison were low in comparison to the study by the the U.S. Department of Justice indicating that the women of the sample were much less likely than international women to have previously served time for a crime. This contradiction may be due to women in South Africa being arrested for previous crime, but not being convicted and subsequently not serving time for the crime.

A major discrepancy was found between the findings and existing literature regarding alcohol and/or drug problems. The results of the study indicate an extremely low rate when compared to literature such as Fortin (2004) and Covington (2002). The discrepancy for the results of the studies may be due to the rates of drinking by 'current drinkers' in South Africa being lower than those found in other developing countries, as was found in a study by Freeman and Parry (2006).

In relation to the *primary caregiver*, the results of the study are closely confirmed by standing literature and it was this variable that indicated a strong relation to psychopathy (Covington, 2002).

The frequency of psychopathy evident in females from the sample was staggeringly high, when compared to the literature, and the majority of the participants had high measures of

psychopathy, as opposed to the prevalence found in the literature ranging from 9% to 30% (Bartol & Bartol, 2012; Grann 2000; Vitale et al., 2002; Warren et al., 2003; Weizemann-Henelius et al., 2004). Rationale for this inconsistency may be due to the small sample size available for the research. Further this finding may be explained by the fact that the Kroonstad Correctional Centre houses offenders who serve long-term sentences.

While conducting the MANOVA analysis a significant difference in the mean scores was found for one of the demographic variables, namely *primary caregiver*. This significant difference prompted a further investigation into the effect size of subscales in terms of *primary caregiver*. Results of this analysis indicated practical importance in connection to blame externalisation. This indicates that South African female inmate psychopaths, who were raised by one parent or by their grandparents, exhibit the trait *blame externalisation* more prominently that the other traits of psychopathy.

The limitations of the study and recommendations for further studies will follow in the next section.

5.4 Limitations of the study

The results of the research should be interpreted in light of the following limitations:

a) The questionnaires were only available in English and although the information was translated on the day of data collection, it may have led to misunderstandings during the completion of the questionnaires. Translators were brought in to counter this problem, but because the questionnaires were read to many of the participants, it may also have lead to the loss of information related to the questions.

b) The sample group consisted of a limited number of participants, which could have constrained the ability to generalise the findings.

Regardless of the above-stated limitations, the results of the study can contribute to the limited research on female offenders, particularly given the scarcity of research on this topic in South Africa. The findings can further contribute to the existing research on psychopathy among females.

5.5 Recommendations for future research

a) Future research should focus on using larger sample groups of female offenders to determine the exact extent of the prevalence of psychopathy in South Africa to be able to generalize findings.

b) Research studies should further aim to implement both quantitative and qualitative methods to develop an in-depth understanding of how psychopathy presents among South African female offenders.

c) Investigating psychopathy among this particular population group should focus on using numerous correctional centres across South Africa, to investigate whether any differences are present in how female offenders from different areas exhibit psychopathy.

d) Prospective research should include the use of additional instruments used to measure psychopathy, such as the PCL-R to verify the results of the PPI-R.

e) Additional research could furthermore investigate how cultural and ethnic features influence the expression of psychopathy, which could be significant in the South African context presenting with such diversity.

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Appendix A

Participant Consent Form

Research number: _____

PARTICIPANT'S CONSENT FORM

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to familiarise yourself with the following:

Thank you for considering participation in this study. The purpose of this study is to identify the unique profile and experiences of sentenced female offenders. This study is conducted in relation to the Master's course at the University of the Free State. Particpation in this study will require the completion of two questionnaires.

Participation in this study is voluntary. While the data obtained may be published, questionnaires will be kept completely anonymous. Should you feel the need to, you may withdraw from this study at any time.

Please complete the following if you are willing to participate in this study.

Signiture of participant: _____

Date: _____

Signature of researcher: _____

Thank you for your time.

Appendix B

Psychopathy Personality Inventory Revised Questionnaire

F – False

MF – Mostly False

MT- Mostly true

T - True

1	If I really want to, I can persuade most people of almost anything.	F	MF	MT	T
2	When I meet people, I can often make them interested in me with just one smile.	F	MF	MT	T
3	Dangerous activities like skydiving (jumping out of an aeroplane with a parachute) scare me more that they do most people.	F	MF	MT	T
4	I have always seen myself as something of a rebel.	F	MF	MT	T
5	I hate having to tell people bad news.	F	MF	MT	T
6	Sometimes I wake up feeling nervous without knowing why.	F	MF	MT	T
7	I like to act first and think later.	F	MF	MT	T
8	I sometimes forget my name.	F	MF	MT	T
9	Sometimes I worry that I have hurt the feelings of others.	F	MF	MT	T
10	I easily get flustered (anxious or panicky) in pressured situations.	F	MF	MT	T
11	I tell a lot of "white lies" (lies that just bend the truth a bit).	F	MF	MT	T
12	I would find the job of a movie stunt person (someone that does wild tricks, like explosions, etc.) exciting.	F	MF	MT	T
13	When my life gets boring, I like to take chances.	F	MF	MT	T
14	I've never cared about society's "values of right or wrong" (things that society sees as right or wrong).	F	MF	MT	T
15	I might like to hang out with people who "drift" from city to city with no permanent home.	F	MF	MT	T
16	If I'd had fewer bad breaks (bad luck) in life, I'd be more successful.	F	MF	MT	T
17	It would bother me to cheat on a test even if no one was hurt by it.	F	MF	MT	T
18	A lot of people have tried to "stab me in the back" (betray me).	F	MF	MT	T
19	People's reactions to the things I do often are not what I would expect.	F	MF	MT	T
20	On big holidays, I never eat more than I should.	F	MF	MT	T
21	I find it hard to make small talk with people I don't know well.	F	MF	MT	T
22	I am not good at getting people to do favours for me.	F	MF	MT	T
23	I get mad if I don't receive special favours I deserve.	F	MF	MT	T
24	I am almost never the centre of attention.	F	MF	MT	T
25	It might be exciting to be on an aeroplane that was about to crash but somehow	F	MF	MT	T

	landed safely.				
26	I pride myself on being different from others.	F	MF	MT	T
27	A lot of times, I worry when a friend is having personal problems.	F	MF	MT	T
28	I tend to get crabby (short-tempered) and irritable when I have too many things to do.	F	MF	MT	T
29	A lot of times, I repeat the same bad decisions.	F	MF	MT	T
30	I think it should be against the law to injure someone badly on purpose.	F	MF	MT	T
31	I get mad when I hear about the injustices in the world.	F	MF	MT	T
32	I don't let everyday hassles get on my nerves.	F	MF	MT	T
33	I could be a good "con artist".	F	MF	MT	T
34	I have a talent for getting people to talk to me.	F	MF	MT	T
35	I like (or would like) to play sports with a lot of physical contact.	F	MF	MT	T
36	I might like to travel around the country with some motorcyclists and cause trouble.	F	MF	MT	T
37	I have never wished harm on someone else.	F	MF	MT	T
38	People usually give me credit that I have coming to me (that I deserve).	F	MF	MT	T
39	If I want to, I can get people to do what I want without them even knowing.	F	MF	MT	T
40	When I'm with people who do something wrong, I usually get blamed.	F	MF	MT	T
41	People are impressed with me after they first meet me.	F	MF	MT	T
42	I have no bad habits.	F	MF	MT	T
43	In conversations, I'm the one who does most of the talking.	F	MF	MT	T
44	I try to be the best at everything I do.	F	MF	MT	T
45	To be honest, I believe that I am more important than most people.	F	MF	MT	T
46	I feel sure of myself when I'm around other people.	F	MF	MT	T
47	Parachute jumping would really scare me.	F	MF	MT	T
48	I would like to spend my life writing poetry in a commune (group home).	F	MF	MT	T
49	I look out for myself before I look out for anyone else.	F	MF	MT	T
50	I get upset easily (highly-strung).	F	MF	MT	T
51	When people lend me something, I try to get it back to them quickly.	F	MF	MT	T
52	Whenever I hear an aeroplane flying above me I look down at the ground.	F	MF	MT	T
53	I often feel guilty about small things.	F	MF	MT	T
54	When I am in a frightening situation, I can "turn off" my fear almost at will (when I want to).	F	MF	MT	T
55	I will break a promise if it's too hard to keep.	F	MF	MT	T
56	I like to stand out in a crowd.	F	MF	MT	T
57	It would be fun to fly a small aeroplane by myself.	F	MF	MT	T
58	I like to dress differently from other people.	F	MF	MT	T
59	Every once in a while, I nod my head when people speak to me even though I'm not paying attention to them.	F	MF	MT	T
60	People "rake me over the coals" (punish me or penalise me) for no good reason.	F	MF	MT	T

61	I try to "stretch" the rules just to see what I can get away with.	F	MF	MT	T
62	I've often been betrayed by people I trusted.	F	MF	MT	T
63	The opposite sex finds me sexy and appealing (attractive).	F	MF	MT	T
64	I have never pretended to know something I didn't know.	F	MF	MT	T
65	I have a hard time standing up for my rights.	F	MF	MT	T
66	When a task gets too hard, I'll drop it and move on to something else.	F	MF	MT	T
67	I enjoy seeing someone I don't like get into trouble.	F	MF	MT	T
68	I get embarrassed more easily than most people.	F	MF	MT	T
69	High places make me nervous.	F	MF	MT	T
70	I get restless when my life gets too predictable.	F	MF	MT	T
71	I feel sad when I see a poor or homeless person.	F	MF	MT	T
72	Some people say that I am a "worry wart" (I worry too much).	F	MF	MT	T
73	When I go on holiday, I plan everything well.	F	MF	MT	T
74	I smile at a funny joke at least once in a while.	F	MF	MT	T
75	It bothers me a lot when I see someone crying.	F	MF	MT	T
76	I get stressed out when I'm "juggling" too many tasks.	F	MF	MT	T
77	I like to (or would like to) wear expensive and "showy" clothing.	F	MF	MT	T
78	It is easy for me to go up to a stranger and introduce myself.	F	MF	MT	T
79	I would not like to be a race-car driver.	F	MF	MT	T
80	I don't care about following the "rules", I make my own rules as I go along.	F	MF	MT	T
81	I never give my opinion unless I have thought it over carefully.	F	MF	MT	T
82	Few people in my life have taken advantage of me.	F	MF	MT	T
83	I don't take advantage of people, even when it would be good for me.	F	MF	MT	T
84	I've been the victim of a lot of bad luck.	F	MF	MT	T
85	When people are mad at me, I usually win them over with my charm.	F	MF	MT	T
86	I sometimes put off unpleasant tasks.	F	MF	MT	T
87	I'm almost never the 'life of the party'.	F	MF	MT	T
88	I am careful when I do work that involves detail.	F	MF	MT	T
89	I've thought a lot about my long-term career goals.	F	MF	MT	T
90	Some people have gone out of their way to make my life difficult.	F	MF	MT	T
91	I would make a good actor.	F	MF	MT	T
92	I sometimes lie just to see if I can get someone to believe me.	F	MF	MT	T
93	I agree with the motto (saying), "if you are bored with life, risk it".	F	MF	MT	T
94	I would have like to be a "hippie" (someone who rejects social and political values and believes in universal peace and love; also someone who lives in groups and uses psychedelic drugs).	F	MF	MT	T
95	I can honestly say that I've never met anyone I did not like.	F	MF	MT	T
96	I function well under stress.	F	MF	MT	T
97	I feel bad about myself after I tell a lie.	F	MF	MT	T

98	I get deeply attached to people I like.	F	MF	MT	T
99	People who know me well know they can depend and rely on me.	F	MF	MT	T
100	I feel that life has treated me fairly.	F	MF	MT	T
101	If I do something that gets me into trouble, I don't do it again.	F	MF	MT	T
102	I often have disturbing thoughts that become so powerful that I think I can hear claps of thunder inside my head.	F	MF	MT	T
103	I have to admit that I'm a bit of a materialist (I place great value on things like money, clothes, etc., rather than placing value on spiritual or intellectual things).	F	MF	MT	T
104	I like my life to be unpredictable and surprising.	F	MF	MT	T
105	I like to make fun of (joke about) established traditions.	F	MF	MT	T
106	I occasionally feel like giving up on difficult tasks.	F	MF	MT	T
107	When I am stressed, I often see big, red, square shapes moving in front of my eyes.	F	MF	MT	T
108	I push myself as hard as I can when I'm working.	F	MF	MT	T
109	I get very upset when I see (photographs of) starving people.	F	MF	MT	T
110	Ending a friendship is (or would be) very painful for me.	F	MF	MT	T
111	I have not thought much about what I want to do with my life.	F	MF	MT	T
112	I'm sure some people would be pleased (happy) to see me fail in life.	F	MF	MT	T
113	I almost never end up being the leader of the group.	F	MF	MT	T
114	I often lose patience with people when I have to keep explaining things.	F	MF	MT	T
115	I might like flying across the ocean (sea) in a hot-air balloon.	F	MF	MT	T
116	Many people see my political beliefs as "radical" (extreme).	F	MF	MT	T
117	I occasionally feel annoyed at (irritated by) people.	F	MF	MT	T
118	I don't get nervous under pressure.	F	MF	MT	T
119	I worry about things even when there is no reason to.	F	MF	MT	T
120	I do favours for people even when I know I won't see them again.	F	MF	MT	T
121	When I am doing something important, like taking a test or calculating my budget, I check it over first.	F	MF	MT	T
122	People I thought were my "friends" have gotten me into trouble.	F	MF	MT	T
123	I often put off doing fun things so I can finish my work.	F	MF	MT	T
124	When an important person is talking to me, I usually try to pay attention.	F	MF	MT	T
125	How much I like someone really depends on how much that person does for me.	F	MF	MT	T
126	Sometimes I do dangerous things on a dare.	F	MF	MT	T
127	Keeping the same job for the rest of my life would be dull (boring).	F	MF	MT	T
128	I occasionally have bad thoughts about people who hurt my feelings.	F	MF	MT	T
129	When a friend says hello to me, I generally either wave or say something back.	F	MF	MT	T
130	I think long and hard before making big decisions.	F	MF	MT	T
131	When someone is hurt by something I say or do, that's their problem.	F	MF	MT	T
132	I tell people only the part of the truth they want to hear.	F	MF	MT	T
133	I have learned from my big mistakes in life.	F	MF	MT	T

134	I get blamed for many things that aren't my fault.	F	MF	MT	T
135	It bothers me to talk in front of a big group of strangers.	F	MF	MT	T
136	I quickly get annoyed (irritated) with people who do not give me what I want.	F	MF	MT	T
137	If I were a fire-fighter, I would like the thrill of saving someone from the top of a burning building.	F	MF	MT	T
138	I would like to have a "wild" hairstyles.	F	MF	MT	T
139	Even when I'm busy, I never have second thoughts about helping people who ask me favours.	F	MF	MT	T
140	I can remain calm in situations that would make many other people manic.	F	MF	MT	T
141	I am the kind of person who gets "stressed out" pretty easily.	F	MF	MT	T
142	I cringe when an athlete gets badly injured during a game on TV.	F	MF	MT	T
143	I usually think about what I am going to say before I say it.	F	MF	MT	T
144	Some people have made up stories about me to get me in trouble.	F	MF	MT	T
145	I watch my finances (money) closely.	F	MF	MT	T
146	During the day, I see the world in colour rather than in black and white.	F	MF	MT	T
147	To be honest, I try not to help people unless there is something in it for me.	F	MF	MT	T
148	I am a daredevil (take chances with my life).	F	MF	MT	T
149	I would like to hitchhike across the country with no plans.	F	MF	MT	T
150	I have never exaggerated a story to make it sound more interesting.	F	MF	MT	T
151	Sometimes I go for several days at a time not knowing if I am awake or asleep.	F	MF	MT	T
152	I try to use my best manners when I am around other people.	F	MF	MT	T
153	I often place my friends' needs above my own.	F	MF	MT	T
154	If I can't change the rules I try to get others to bend them for me.	F	MF	MT	T

Appendix C

Self Compiled Demographic Risk Questionnaire

1. Age:							

2. Home Language							
Sesotho	Setswana	Xhosa	Zulu	Afrikaans		English	Other, Specify

3. Education							
None	Some Primary (ABET 1 or 2)	Some Primary (Grade 7/ Standard 5 or ABET 3)	Some Secondary (ABET 4)	Completed Secondary (Grade 12/ Standard 10)		Some Tertiary	Completed Tertiary (diploma/degree)

4. Martial status						
Not married	Married	Common law marriage/ living together	Divorced		Separated but not divorced	Widower

5. Who was mainly responsible for raising you?					
Mother and father	Only mother	Only father		Grandparents	Other: Specify

6. How would you describe your relationship with the person who raised you?		
Negative relationship (e.g. arguing, unnecessary punishment or absent)	Moderate relationship (e.g. good factors and bad factors)	Good relationship (e.g. loving, open and warm relationship)

7. Was any of your biological parents or closest biological brothers or sisters ever in trouble with the law?			
Father	Yes	No	Don't know
Mother	Yes	No	Don't know
Brother(s)	Yes	No	Don't know
Sister(s)	Yes	No	Don't know

8. How many times have you been found guilty of a crime?			

9. How many times were you arrested under the age of 16?			

10. How many terms have you previously served in prison?			

11. What crimes have you previously served time in prison for?			
Economic crime	Sexual crime	Homicide	Other, specify:

12. What crimes are you currently serving time in prison for?			
Economic crime	Sexual crime	Homicide	Other, specify:

13. How long is your current sentence?			

14. How many years of your current sentence have you served?			
15. How do you feel about the crime/s you have committed?			
What happened was not my fault and the criminal justice system let me down	I will accept some responsibility but circumstances led me to commit crime		I accept responsibility for what happened and feel sorry for victims of crime
16. Would you be able to return to your old job when/if you should be released from prison?			
Yes	No	I don't know	I did not have a job
17. Are any of your friends involved in crime?			
Yes		No	
18. Did you have a drug/alcohol problem in the year before you went to prison?			
Yes		No	
19. If you answered yes to question 18, did the alcohol/drug problem influence your work/school achievement?			
Yes		No	
20. Have you been tested for work interests, aggression or psychological problems during the past year?			
Yes	No		I don't know

Appendix D

Ethical Clearance Letter

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Ethics Office

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17 October 2012

ETHICAL CLEARANCE APPLICATION:

PSYCHOPATHIC TRAITS AND OFFENDER CHARACTERISTICS AMONGST FEMALE OFFENDERS IN A SOUTH AFRICAN CORRECTIONAL CENTRE

Dear Ms S Basson

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence, is:

UFS-EDU-2012-0052

This ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension in writing.

We request that any changes that may take place during the course of your research project be submitted in writing to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise. At the conclusion of your research project, please submit a project report stating how the research progressed and confirming any changes to methodology or practice that arose during the project itself. This report should be under 500 words long and should contain only a brief summary focusing primarily on ethical considerations, issues that may have arisen and steps taken to deal with them during the course of the research.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours sincerely,

Andrew Barclay
Faculty Ethics Officer

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