The relationship between stressful life events, personality profile, dissociative experiences, attachment styles and the types of crimes committed among mentally

ill offenders and criminal offenders in the South African context.

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DECLARATION:

I, Zama Radebe declare that this research report is my own work. It is being submitted as a part of fulfilment for PhD in Psychology in the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

Signed ______ day of ______ 2014

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In memory of my late brother

Mabandla F. Mkhonza

1987-2012

Abstract

The current study investigates the relationship between stressful life events, personality profile, dissociative experiences, attachment styles and the types of crimes committed among 100 mentally ill offenders and 100 criminal offenders in the South African context. It is motivated by the fact that there are no studies in South Africa comparing forensic patients and criminal offenders and the various factors that may lead to criminal behaviour, and how these may present in terms of the type and/or nature of offences committed. Instead, there is a growing emphasis on observation of patients and assessments for fitness and competence to stand trial with very little focus on understanding the mentally ill offenders and criminal offenders. This study aims to improve the understanding and knowledge with regards to the presentation of each of these groups under study and also to investigate possible differences in the types of crimes committed. It aims to assess possible correlations between the variables of the study (stressful life events, personality profiles, dissociative experiences, attachment styles and the types of crimes). It further aims to inform future treatment interventions in the forensic setting and to offer possible prevention models for the community setting. The study hypothesises that there are no differences between the mentally ill offenders and criminal offenders with regards to stressful life events, personality profile, dissociative experiences, attachment styles and the types of crimes committed. Ethical clearance was obtained from the Committee for Research on Human Subjects of the University of Witwatersrand's medical school. The sample size of this study consists of 200 participants (156 males and 54 females).

Convenience sampling was used, where 100 mentally ill offenders admitted at the Sterkfontein Psychiatric Hospital and 100 criminal offenders, incarcerated at the Johannesburg Correctional Services in the Johannesburg area at the time of data collection, were involved in the study. The mentally ill offenders from Sterkfontein Psychiatric Hospital were interviewed at the hospital and the criminal offenders from Correctional Services were interviewed in their respective prisons without the presence of a prison guard.

Participants' ages ranged from 18 years to 60 years. Those people who were not willing to participate were not included in the study. The Biographical details questionnaire, Social Readjustment Rating Scale (SRRS), Stressful Life Events Screening Questionnaire (SLESQ), Multiphasic Minnesota Personality Inventory - II (MMPI-II), Dissociative Experience Scale (DES) and Attachment Styles Questionnaire (ASQ) were administered to the participants of the study as a means of gathering information regarding the variables under study. The types of crimes and diagnoses were obtained from the records. The study attempted to ascertain whether there were any associations, and whether predictions could be made for possible future assessments and treatment strategies. It is a quasi-experimental design with "diagnosis" as the between-participants factor. Independent variables of the study were the type of offender, i.e. mentally ill/clinical/forensic patient offender and criminal offenders, as well as the types of crimes, i.e. violent or non-violent crime. The dependent variables were stressful life events. These variables were measured in terms of low risk to illness, moderate risk and high risk to illness; personality profile; dissociative experiences, measured as either low levels or high levels of dissociation and attachment styles (secure, fearful avoidant, ambivalent and preoccupied attachment styles). The confounding variables were substance abuse, medication and comorbid diagnoses.

Descriptive statistics and the discriminant function analysis were performed. Box M was also performed to test the null hypothesis that the covariance matrices did not differ between groups formed by the dependent variables. The Chi Square test for independence was also used to determine whether associations existed between two nominally categorical variables. The results of the study indicated that there were only four female participants in the clinical offender group.

A high number of research participants were single in both the criminal (72%) and clinical (80%) offender groups. Furthermore, the majority of the participants in the study were Black, where 93% in the criminal offender group and 75% in the clinical offender group. 65% of the participants in the criminal offender group and 85% in the clinical offender group had no tertiary education. There was evidence that clinical offenders tended to commit more violent crimes (83%), while criminal offenders committed more non-violent (61%) and "other" crimes (21%). 91% of criminal offenders reported homelessness compared to clinical offenders (22%). The Dissociative Experience Scale was statistically significant, suggesting that dissociative experiences were a strong determinant of whether one is deemed a criminal or clinical offender. High levels of stress were correlated with higher incidents of criminal behaviour. In contrast to the literature review, past childhood trauma was not statistically significant in the current study. Clinical offenders reported more psychological problems. When ANOVA's were performed, psychological difficulties such as depression, anger, antisocial practices, low self-esteem, psychasthenia and family problems were statistically significant, suggesting that these variables were strong determinants for the likelihood of criminal offending. Dismissive and Fearful attachment styles were statistically significant.

In conclusion, dissociative experiences, social re-adjustment, psychological pathology and both dismissive and fearful attachment styles were strong determinants of offending behaviour.

GLOSSARY: Definition of Terms

The mentally ill offenders / Forensic Patients/ Clinical Offenders

The term mentally ill offenders or forensic patients or clinical offenders in the present study refers to the group of people who have committed crimes, yet are found to present with Axis I diagnosis of the DSM-IV (APA, 2005). The terms clinical offenders and mentally ill offenders are used interchangeably in the current study.

Criminal Offenders

A criminal offender in the present study is defined as a person who commits an act of intent that is against the South African Criminal Law and has been convicted for the criminal act.

Violent Crimes

Violent crimes are defined as intentional acts of aggression in humans that violate criminal law (Mitchell, 1999).

Non-Violent Crimes

Non-Violent crimes refer to offences against the criminal law in the absence of physical violence. These would involve all forms of stealing other than robbery (Wikstrom, 1989).

Other Category of Crimes

The other category would include crimes that could be categorised outside the violent and nonviolent crimes. These would involve crimes such as fraud, crimes related to debts, crimes of falsification, traffic crimes (drunken driving, driving without a licence), gambling, smuggling and tax evasion (Wikstrom, 1989).

Attachment

Attachment is the capacity to form and maintain healthy emotional relationships. It is defined as a special type of affectional bond between individuals. The capacity to create these special relationships begins in early childhood (Edwards, 2002; Bartholomew & Horowitz, 1991).

Borderline Personality Disorder

Borderline Personality Disorder is defined as a psychiatric diagnosis that describes a long-term disturbance of personality function. It is defined as a pervasive pattern of instability of interpersonal relationships, self-image and affects, and marked impulsivity beginning by early adulthood and present in variety of contexts, as indicated by five or more of symptoms such as frantic efforts to avoid real or imagined abandonment; a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation; identity disturbance; impulsivity in areas that are potentially self-damaging; recurrent suicidal behaviour or self-mutilating behaviour; affective instability; chronic feelings of emptiness; inappropriate, intense anger and transient, stress-related paranoid ideations (DSM-IV-TR, 2005).

Antisocial Personality Disorder

According to DSM-IV TR (2005), antisocial personality disorder is defined as a pervasive pattern of disregard for and violation of the rights of others occurring since the age of 15 years and is indicated by three or more of the following symptoms, including failure to conform to social norms; deceitfulness; failure to plan ahead; irritability and aggressiveness; reckless disregard for safety of self or others and lack of remorse. The occurrence of the disorder is not exclusively during the course of schizophrenia or manic episode and there must be presence of conduct disorder.

Black

The term black is an everyday English language phrase often used to describe people of Sub-Saharan African descent. It also is used in other socially based systems of racial classification or of ethnicity for people who are perceived to be dark-skinned relative to other racial groups or who are defined as belonging to a black ethnicity. In South Africa, the population is classified into four main racial groups including black, white, asian (mostly indians) and coloured.

Coloureds

In South Africa, the term Coloureds is an ethnic label for people of mixed ethnic origins, who possess ancestry of Europe, Asia, and various Khoisan and Bantu tribes of Southern Africa.

The relationship between stressful life events, personality profile, dissociative experiences, attachment styles and the types of crimes committed among mentally ill offenders and criminal offenders in the South African context.

CHAPTER 1

1. Background/Literature Review

This literature review will begin by describing the challenges facing forensic psychology and psychiatry in South Africa. The prison system and prevailing conditions will be described, as well as the limitations in policy implementation. This section aims to provide a background and understanding of the current prison setting and conditions. The prevalence of gangs in prisons will then be described as they reflect the prison lifestyle as well as those challenges faced by the prisoners within the system. Predisposing factors leading to crime will be discussed to broaden and sensitise the reader to available literature that contributes to understanding important questions such as factors that are likely to render a person vulnerable to criminal behaviuor. Resources and access to care, highlighting the challenges that were faced by the previously disadvantaged population in South Africa under apartheid legislation are also discussed. Clinical factors are looked at to explore the psychology behind criminal behaviour. The researcher then moves on to review mental health and law as well as forensic psychiatric settings and conditions in South Africa. A background and understanding of predisposing factors to mental illness is explored. The nature versus nurture debate is reviewed as an important aspect in understanding mental illness. The two groups under study, i.e. criminal and clinical offender groups motivate the need to create a better understanding of criminal behaviour and mental health. In South Africa, there is a high rate of violent crimes against persons, thus understanding violence becomes important. As a result, the current study examines violence and types of violence. Given that mental health is a significant component of the current study, the role of major psychiatric disorders, substance abuse and intellectual disability is discussed. Literature relating to the variables of the study such as the roles of personality disorders, traumatic experiences and stressful life events, attachment, dissociation and types of crimes are reviewed in detail.

Bartol and Bartol (2004) defined forensic psychology as the research endeavour that examines aspects of human behaviour directly related to the legal processes such as eyewitness memory and testimony, jury decision making or criminal behaviour. Furthermore, they defined forensic psychology as the production and application of psychological knowledge to the civil and the criminal justice systems. Thus, the breadth of forensic psychology ranges from child custody decisions to jury selection, from alleviating police burnout to carrying out competency evaluation, and from serving an expert witness to advising legislators on public policy.

Ogunlesi, Ogunwale, De Wet and Kaliski (2012) highlighted that, within the discipline of forensic psychiatry, there are differences not only in developing countries like South Africa but in developed countries as well. These researchers state that this is possibly due to different legal systems, resources and priorities in the different countries. Whilst South Africa is the second largest and most populated country in Africa that has immense diversity of languages, religious traditions, ethnic groups and socio-political systems, forensic psychiatry has largely remained underdeveloped with pervasive neglect in the provision of mental health services (Ogunlesi, et

al., 2012). The practice of forensic psychiatry in Africa is shrouded in both mystery and confusion. Most people who work in the forensic field in South Africa have been taught and work within those very poorly resourced mental institutions that characterise the African continent in general and South Africa in particular (Njenga, 2006). Similarly, Ogunlesi et al., (2012) have suggested that the role of forensic practice in civil litigation has lead to many psychiatrists in private practice in South Africa becoming involved in such matters, mostly with little peer review or official regulation. In addition, Njenga (2006) noted that most mental hospitals in Africa were located in what he called "economic ghettos" of cities, and the forensic units were in turn located in the "ghettos" of these hospitals, in locations often termed maximum security units. Forensic units are often located in hospitals, but it seems that these units are similar to extensions of prisons. Njenga (2006) also pointed out that the forensic units were faced with the dilemma that they did not belong to either the medical or prison systems. This could bring about confusion and ambivalent feelings. It is common to assume that prisons would evoke harsh and difficult feelings usually associated with perpetrators, whilst medical settings or hospitals are more likely to evoke empathic feelings associated with patients who are ill. Thus, it is not surprising that forensic hospitals would evoke a mixture of these feelings, which might be difficult to integrate. Splitting as a defence would help keep these feelings apart from each other, facilitating a lack of integration in the mind of the general public when regarding the difficulties of a forensic patient. The process of psychotherapy could play a significant role in dealing with splitting and assisting in the integration of conflictual feelings. In addition to the lack of adequate facilities, forensic units in Africa are further faced with limited access to psychiatric services in many instances. As a result, those patients with the added need for forensic care have even less access.

In South Africa, the South African Criminal Procedure Act, No. 51 of 1977 and the Mental Health Care Act, No. 17 of 2002, have aligned the country with current global trends, such as the shift from hospital care to community care, the integration of general health care and protection of the mentally ill user's human rights (Ogunlesi et al., 2012). Furthermore, it is noted that forensic psychiatry has been formally practised in about seven specially designated hospitals throughout South Africa for almost 100 years. Ogunlesi et al., (2012) reported that most of the assessments and treatments were conducted by psychiatrists who were dedicated to the forensic mental health system. With regards to forensic psychology, a young developing field in South Africa, most of the research done in this area has focused on issues of the individual's ability to stand trial, to understand court proceedings and/or whether s/he displays diminished mental capacity (Prosono, 2003). There has also been a growing emphasis on understanding criminal behaviour in "normal populations" (Baron, 2003). Though the roles of psychology and psychiatry have been acknowledged to a certain extent with regards to such issues in South Africa, there remains a lack of broader understanding of issues such as predispositions to criminal behaviour as well as the lack of mental health care services in the criminal justice system. The limited specialised psychiatric hospital services are located in the cities. This would mean that they are not always accessible to people in the rural areas. Forensic patients from outlying areas are often separated from their families, depriving them of much needed support and participation in their treatment. In addition, the families are not assisted in dealing with the trauma of being separated from their loved one; or with the crime or violation that has allegedly been committed against a neighbour, community member or family member. This is also true for families of victims of crime and children are often more vulnerable. These issues further complicate the treatment and the re-integration programmes into society. Families often experience shame and conflicted feelings while facing criticism and stigma in their communities. Families are to a large extent left without support partly due to limited resources. The mental health care services remain very limited within the Correctional Services Systems in South Africa.

Ikejiaku (2009) investigated crime, poverty, political corruption and conflict in South Africa during and after apartheid, examining its impact on the economic development of the country. He argued that the transition to a democratic, non-racial government in 1994, stirred a debate on the course of economic policies to accomplish sustained economic growth, while at the same time remedying poverty, and other socio-economic discrepancies generated by the apartheid government. These included inequality and unemployment, particularly in relation to Black South Africans, corruption, the rise in conflict and the high rates of crime. Ikejiaku (2009) compared the level of crimes in the periods from 1994 to 2005, looking specifically at their impact on the socio-economic development in South Africa. Furthermore, he elicited comparative evidence on other socio-economic issues such as poverty, inequality, political corruption and conflict in these two periods. He concluded that the consolidation of democracy had ameliorated these problems to some extent (Ikejiaku, 2009).

Although there are still problems, Ikejiaku (2009) reported that South Africa is one of the unique and distinct Sub-Saharan African countries that has endeavoured to achieve an advanced and industrialised level of development. Despite this, South Africa has suffered many socio-economic problems, such as poverty, inequality, corruption, conflict and particularly a high level of crime that continues to traumatise South Africans (Ikejiaku, 2009). The patterns of crime and violence in South Africa have often impacted on both political and social development, especially since the 1950's. Nevertheless crime increased to an alarming proportion after a modified constitution was implemented in 1984, which granted limited parliamentary representation to Coloureds and

Asians but not Blacks. In addition, the available statistics, for example in murder, showed that the number of reported murders rose to 10 000 in 1989 and to 11 000 in 1990 (Ikejiaku, 2009). Assault, rape and armed robbery showed similar increases. Ikejiaku (2009) pointed out that the police estimate was that 22 000 people died in crime-related violence in a fifteen month period ending in February 1991. Winslow (2002) reported that in 1992, South Africa had one of the world's highest crime rates, on a per capita basis. In 1992, 16 067 cases of murder were reported, 78 677 robbery incidents and 24 360 rape cases (Winslow, 2002). These statistics revealed that in the twenty-year period from 1963 to 1983, recorded crime per capita, increased by approximately 35 per cent, particularly in the 1980's and early 1990's. In addition, during the decade 1980 to 1990, in which the apartheid state was most strongly challenged, there was a significant increase in crime. Shaw (1997) has indicated that serious offences rose by 22 per cent and less serious ones by 17 per cent; murders increased by 32 per cent, rape by 24 per cent and burglary by 31 per cent during this period. In South Africa, there were many crimes that were not reported due to a general distrust of the criminal justice system and the role of the police in sustaining apartheid laws.

Significantly, crime increased during the period of political transition, coupled with instability and violence (Ikejiaku, 2009). Schonteich and Louw (2001) argued that during periods of instability, regular policing activities were diverted towards controlling violence and that crime levels consequently multiplied. During South Africa's political transition from 1990 to 1994, the level of crime increased dramatically (Ikejiaku, 2009). Although homicides, theft and burglaries decreased between 1995 and 2000, there were increases in major assaults, robberies and rape cases. Assault increased by 18 per cent; rape by 42 per cent; robbery by 40 per cent; vehicle theft by 34 per cent and burglary by 20 per cent (Shaw, 1997). Ikejiaku (2009) argued that the

implication of these figures was that in post-apartheid South Africa, the level of violent crimes and not property crime had increased. It is possible that South Africa as a nation had grown accustomed to violence and regarded it as normative under the apartheid state. A generation of children and youth grew up in a world of teargas, whippings, bullets and deaths on the streets. The apartheid era involved periods where parents were carried away for interrogation, loved ones disappeared, parents were assassinated, homes were destroyed and people set alight with the emergence of necklace murders, which arose to deal with collaborators. This environment, characterised by violence and trauma raises important psychological questions. Specifically, it is essential to ask what happens to individuals exposed to trauma without the opportunity of proper mourning, grief processing, treatment and management of traumatic exposures (Gobodo-Madikizela, 2009). As a result of South Africa's previous apartheid policies, specifically the Group Areas Act (No. 41 of 1950); the pass system, and the migrant labour system, many South African families were divided, disrupted and separated. The pass system was enforced in the South African Republic, where pass laws were used to restrict movement of Black people in certain areas, segregate the population, manage urbaniszation, and allocate migrant labour. The system also criminalized millions of ordinary South Africans (Johnstone, 1976). This led to the undermining of parental authority and control and also of both child and youth parental attachment bonds. Furthermore, the exposure of a generation of children and youth to institutional political violence over suppression has raised the risk that for many young people, violence may have become a normative way to deal with their frustrations. With the loss of intact family systems, parental authority and young people exposed to a generation of violence, the sharp rise in violent crime following the introduction of democratic dispensation in 1994 is not surprising. It has been hypothesised that reconciliation and forgiveness as espoused by the Truth and Reconciliation Commission, South Africa (1995) may have been premature, and that unprocessed feelings of revenge and entitlement may be partially represented in the rise of violent crime in South Africa (Wilson, 2000). Furthermore, when former President Nelson Mandela took over the role of President in South Africa, he came with a particular focus on the importance of reconciliation. It is arguable whether this focus on reconciliation was premature and whether issues of accountability and compensation were adequately negotiated and dealt with. It would seem that the intention was to move from violence to reconciliation without clear and specific psychological processes to negotiate between the two extremes.

It appears that many transition periods in South Africa have been characterised by violence and an increase in criminal behaviour. This was evident when the Constitution of South Africa Act, No. 119 of 1984 was passed, in 1990 when former President Nelson Mandela was released from prison and in 1994 when South Africa was declared a free and democratic country. During these periods, violence became a means of communication and political expression.

CHAPTER 2

2.1. THE PRISON SYSTEM AND CONDITIONS IN SOUTH AFRICA

This chapter discusses the prison system and its conditions within the South African context. The aim is to look at the prison system including the policies that govern and promote rehabilitation and how these address societal expectations of the prisoner after imprisonment as well as reintegration to the community. The chapter highlights policy confusion in the prison system and the difficulties attached to the implementation of these policies in the rehabilitation programme within the prison context.

South Africa has 239 prisons; 130 are designed for males only, 86 are mixed, eight are for female inmates only and 13 are for youth (South Africa at a glance, 2012-2013). Dissel (1996) investigated prison conditions in South Africa and conducted interviews with inmates. She noted that the Department of Correctional Services had over a period of years relaxed its policy on allowing visitors into prisons and that many prisons have been at the centre of critical media coverage. Her purpose in visiting the prisons was to establish the prisoners' experience of incarceration and to make the public aware of what happens to those offenders whom societies condemn to prison. While the courts and society demand harsher treatment of criminals and longer terms of imprisonment, there remains an unwillingness to invest in improved conditions for prisoners. Although society expects through the experience of imprisonment, that prisoners should be punished and also rehabilitated so that they do not re-engage crime on release, few resources are invested in rehabilitation programmes.

Research based on information collected from the prison authorities indicated that awaiting trial prisoners were allowed out of their cells for exercise every second day and that some awaiting trial prisoners were rarely, if ever, allowed out for exercise (Dissel, 1996). In addition, prisoners were released from their cells to collect their food in the morning and again in the afternoon. The rest of the day was spent in their cells. The only activities available to the awaiting trialists were cards and board games which they had procured or made themselves. Dissel (1996) reported that in Modderbee prison, there were no schooling, training, or recreation facilities available and that the prisoners' day consisted of an endless routine of idleness. In order to achieve the dual goals of rehabilitation and crime reduction, it is clear that an integrated policy aimed at developing life skills as well as employment skills is required (Dissel, 1996). Furthermore, she observed that the prisoners were certainly punished, degraded and deprived of every aspect of their responsibility, but that there was very little done to promote rehabilitation and reintegration into society upon release. Nevertheless, Dissel (1996) reported that the conditions of prisoners had improved in comparison to the past years in several ways. Firstly, disciplinary procedures had become more humane, contact with families and the community had improved, and a concerted effort was being made to introduce training, education and work opportunities into some of the prisons. Furthermore, Dissel (1996) noted that the Department of Correctional Services was limited by lack of funds and severe staff shortages. She reported that South Africa had one warden to every 5.5 prisoners, and that this figure was far lower in comparison to the US figures.

2.2. MAJOR PROBLEMS

2.2.1. OVERCROWDING

Following the new democratic disposition in 1994, it was noted that overcrowding in prisons was ubiquitous. Dissel (1996) reported that by end of May 1996, the numbers of awaiting trial prisoners in South African prisons had risen to 30 000, which meant facilities were occupied beyond capacity.

More recently, Muntingh (2009) has indicated that the profile of the prison population has changed significantly since year 1994 in relation to the size of the prison population, awaiting trial detainee population, the lengths of sentence and duration of detainee awaiting trial. In turn, these changes have had a significant impact on conditions of detention and adherence to human rights standards. In 1995, South Africa had a prison population of 120 000 and that this figure had grown to 180 000 with an overcrowding of nearly 50 per cent (Muntingh, 2009). The number of prisoners serving sentences longer than seven years increased from fewer than 30 000 in 1995 to nearly 69 000 by the end of 2008. In addition, the number of prisoners sentenced to life imprisonment increased from approximately 400 in 1995 to 8 000 by 2008. In 1995, the awaiting trial detainee population numbered 23 783 and that by year 2000, it had increased to 57 811. In 2005, it decreased to 47 305. At the end of 2008, the number for awaiting trial detainees further increased to 50 284. Furthermore, by the end 2008, nearly 45 per cent of the awaiting trial detainee population had been waiting in custody for three months and longer and 26 per cent had been in custody for longer than six months (Muntingh, 2009). The slow process of the courts and the backlog of many cases frequently results in prisoners being held awaiting trial for many months, sometimes six months to a year. It appears that, although the Department of Correctional Services has made attempts to address some of the issues, many difficulties remain. Furthermore, this delay facing the awaiting trial detainees seems to contribute significantly to the problem of overcrowding in prisons. The Department of Correctional Services responded to the problem of overcrowding by releasing large groups of prisoners to relieve the pressure on available capacity. In 1995, 30 000 prisoners were released after their sentences had been remitted (Muntingh, 2009). This raises questions as to whether rehabilitation had taken place prior to their release and whether unconditional release contributed to later recidivism. In addition, this may have added to the burden of poverty, unemployment and failure to reintegrate into society.

2.2.2. LACK OF CAPACITY

Muntingh (2009) argued that although the Department of Correctional Services employed a large number of staff, it lacked appropriate training. Consequently, the staff did not possess the skills and knowledge to implement the White Paper policies and ensure compliance with the Correctional Services Act, No. 111 of 1998. The 2007/2008 Department of Correctional Service Annual Report noted that the Department of Correctional Services faced some risks due to the lack of compliance with legislative and procedural requirements. Serious shortfalls were noted in the Department of Correctional Services within the area of professional skills such as social workers, doctors, psychologists, nurses, occupational therapists and educators (Muntingh, 2009). Professionals tend not to remain in the employment of the Department of Correctional Services resulting in high staff turnover, loss of experience and lack of continuity. In addition, a further cause of reduced capacity is the increasing impact of HIV/AIDS (Muntingh, 2009). Although this has been a major concern affecting day to day operations of prison, the long-term impact of HIV/AIDS is the presentation of psychotic symptoms as well as dementing processes. Sufficient medical and mental health care is not readily available in the prison settings, leading to a lack of timely diagnosis and necessary treatment.

2.2.3. POLICY CONFUSION

A further serious problem identified in the correctional services has been that of policy confusion (Muntingh, 2009). The Correctional Services Act was promulgated in October 2004 and in March 2005, the White Paper, which gave rise to a plethora of new policy documents, was released. The unintended consequence of this dual release of policies has been that more attention has been given to the White Paper Policy development than to the fulfilment of the duties imposed by the Correctional Services Act. Muntingh (2009) pointed out the authoritative tension between the Correctional Services Act and the White Paper as overarching frameworks. This tension arose from the differing philosophies underlying the White paper and the Correctional Services Act of 2004. The latter has a restrained and retributionist approach to corrections, while the White Paper has a rehabilitationist approach. For example, within the White Paper, offenders are regarded as people whose behaviour could be changed and prison is seen as the place to effect that change as opposed to facilities that should only provide punishment. Although the Correctional Services Act of 2004 set out to restrict any gratuitous retribution in prisons and to provide for the protection of prisoners' rights, the White Paper focused more on prisoners' rights and in maintaining prisons as rehabilitation centres. However, the White Paper failed to stipulate in detail how the rehabilitation was to be effected. In addition, the idealistic vision of the White Paper is at odds with the reality of the South African prisons, which remain fundamentally retributive mechanisms for dealing with crime. Finally, the policies derived from the White Paper have not been developed into new standing orders and job descriptions. Therefore, young recruits to the Department of Correctional Services, trained in the new rehabilitationist vision, have little idea as to how to implement and translate the vision into daily activities in the prison setting. In addition, the older Department members remain untrained in such methods and skeptical of rehabilitation in general (Muntingh, 2009).

The Department of Correctional Services has a psychological services policy in place to assist psychologists and counsellors in promoting mental health and emotional well-being in order to facilitate the process of healing and reconciliation of interpersonal relationships. The implementation of the policy aims to assist and enable offenders, probationers and parolees to lead law abiding and productive lives while in correctional care, as well as after completion of their sentences. The policy also promotes partnerships with the community. The policy on psychological services provides a broad framework for sentence planning and case management both in correctional centres and for offenders, probationers and parolees. The policy states that an integrated and holistic approach should be followed in the rendering of psychological services. The roles of psychologists and counsellors within the six service delivery areas of the Department of Correctional Services were defined as including care, which consists of psychological and counselling interventions aimed at maintaining or improving the mental health/psychological well-being of offenders, probationers and parolees. Secondly, the policy states that the psychological and counselling interventions should be aimed at correcting or addressing offending/criminal behaviour including risk factors of offenders, probationers and parolees. Thirdly, the policy states that the focus should be on the development of the offender, where the psychological and counselling interventions should be aimed at improving the general personality functioning, psychological resilience and life skills of offenders, probationers and parolees. This includes programmes that facilitate the development of healthy personality functioning and the acquisition of interpersonal skills. Fourthly, the policy states that the psychological and counselling interventions should facilitate the psychological and emotional reintegration of offenders, probationers and parolees into society on completion of their sentences. Fifthly, the psychological and counselling interventions and recommendations should be aimed at contributing to the emotional, social and physical security of offenders, including interventions to eliminate suicide risks. Lastly, the psychologists' recommendations and inputs regarding the lack of resources and limited facilities in prison challenge the conditions required for psychologists to meet the Ethical Code of Conduct requirements of the Board of Psychology, the Health Professions Council of South Africa (Ethical Code of Conduct for Psychologists Revised, 2006). The Correctional Service Annual Report 2012/13 states that the incumbent government's service delivery mandate that is commensurate with the 5 year electoral period from 2009 to 2014 has generated 12 government outcomes, and Outcome 3 in particular (All People in South Africa are and feel safe), has specific significance in relation to the Department of Correctional Services' service delivery mandate. The performance environment in which the Department of Correctional Services is mandated to operate, dictates that the department delivers its mandate in alliance with other government departments, particular in the Justice, Crime Prevention and Security Cluster. It is stated that the Department of Correctional Services cannot successfully execute its service delivery mandate without employing an integrated approach of synchronising all efforts with other Justice Crime Prevention Security cluster members. In the fight against crime, the Department of Correctional Services therefore operates within the Integrated Justice System as a crucial partner in the value chain charged with the responsibility, not only of the safe and humane incarceration of offenders, but most importantly, to also correct their offensive behaviour through rehabilitation programmes so that at the end, the offenders are reintegrated back into society as

responsible and law abiding citizens that are less likely to relapse from their transformed behaviour. The department's mandate of rehabilitating offenders while at the same time caring for them and developing them either through skills development or educational programmes with the aim of reintegrating them successfully back into society. The annual report claims that the Department also contributes towards several government outcomes, namely improved quality of basic education; ensure a long and healthy life for all South Africans; produce a skilled and capable workforce to support an inclusive growth path; and create a better South Africa. The question remains as to whether this has been implemented and yielded observable results.

During the 2012/2013 Budget Vote Speech, the Deputy Minister of the Department of Correctional Services announced that the Department of Correctional Services will design an appropriate rehabilitation path for offenders who have committed crimes, and ensure that appropriate correctional programmes are designed to address offences of car hijacking, business robbery and house robbery, the department has finalised a correctional programme on murderrelated offences, named "Changing Lanes" which has been made available to regions for implementation. The Sexual Offender Treatment Programme and the training schedule was developed and approved. Twenty three Social Work Managers and supervisors were trained on the programme in February 2013 and training for employees at lower levels was included in the 2013/2014 plan. Upon approval of the Department of Correctional Services Victim Offender Mediation model as a Restorative Justice Intervention programme, the department signed a memorandum of understanding with Foundation of Victims of Crime with the purpose of tracing victims of crimes for their possible participation during the parole placement considerations of offenders who committed offences against them. During 2012/2013 financial year Foondation of Victims of Crime traced 1037 victims of crime and 46 of the victims traced participated in Parole Boards sittings. Another 52 participated in Victim Offender Model whilst 875 were ready for participation in either Victim Offender Model or Parole Board hearing, and were waiting for processes to unfold between Foundation of Victims of Crime and Department of Correctional Services. It appears that there are shifts towards integrating the policies in the latest annual report. Questions relating to sustainability and whether the staff are clear to implement the changes made on paper is yet to be witnessed.

2.2.4. BUDGET ALLOCATION AND DISTRIBUTION

The percentage of the budget allocated to the Social Reintegration Programme of the Department of Correctional Services remained stable at approximately 3.2 per cent for the budgets of year 2003/2004. Although the White Paper identified rehabilitation and successful reintegration as the Department of Correctional Services' core business, the budget allocation placed emphasis on other areas. The budget of the Department of Correctional Services has increased significantly since 2004 but much of that budget has been allocated to infrastructural development such as the building of two new private prisons, TVs, CCTV, fencing, biometric security systems and the employment of more staff (Muntingh, 2009). The disjuncture between budget allocation and policy priorities has limited the capacity of the Department of Correctional Services of capacity to carry out the rehabilitative requirements of the White Paper (Muntingh, 2009; Luyt, 2008). Furthermore, it is argued that the question of how the Department of Correctional Services should spend money on rehabilitation has also not yet been clearly addressed. A further challenge is recruiting the right staff with the necessary skills and levels of motivation (Muntingh, 2009).

2.2.5. CORRUPTION, MISMANAGEMENT AND OVERSIGHT

Muntingh (2009) reported that attempts between the years 1994 to 2000 to transform the Department of Correctional Services to align with the democratic values were disastrous. This view was supported by the Jali Commission (2001), which found that the Department of Correctional Service was fraught with corruption. One of the major problems noted by the Commission in the South African prison systems is the tendency to resist accountability and transparency (Jali Commission, 2001; Sekhonyane, 2002). It is noted that both the Office of the Inspecting Judge of Prisons (2008) and the Portfolio Committee on Correctional Services (2009) have made tremendous efforts to penetrate management in the Department of Correctional Services, particularly between years 2003 to 2008, but that these efforts have not been welcome. It is argued that, because the Department of Correctional Services has remained difficult to penetrate, this has resulted in continuous litigation on issues of prisoners' rights (Annual Report of the Judicial Inspectorate of Prisons 2007/2008; Muntingh, 2009). In the five reports of the Auditor General, the subject of financial management in the Department of Corrections Services has been identified as the most problematic. Furthermore, these reports suggested that the tainted image of the Department of Correctional Service has placed the morality of the criminal justice process at risk (Department of Correctional Services, Annual Report, 2007/2008). The existence of the Judicial Inspectorate of Prisons that was created by the Correctional Services has attempted to bring transparency into the prison system. However, the Judicial Inspectorate has also been questioned by prisoners who felt that their needs or complaints have not been addressed. In 2002, the powers of the Judicial Inspectorate were weakened and this amendment meant that corruption and fraud were under-reported to the Inspectorate. This in turn meant that the Judicial Inspectorate could no longer discipline the Department of Correctional Service

officials and that it had limited powers in making recommendations to the Minister of Correctional Services. This has raised significant concern as the cases that were reported to the Inspectorate involved incidents of deaths in custody and mass assault (Muntingh, 2009). The UN Committee against Torture (2006) raised awareness about the problems of oversight in the prison systems. They noted that there were high numbers of deaths in detention and that this number had shown a constant increase. The UN Committee's recommendations was that the state should thoroughly and impartially investigate the deaths in detention, the allegations of acts of torture or cruelty and inhumane treatment committed by law enforcement personnel, and that it should bring the perpetrators to justice. This could serve as an attempt to restore the trust of the prisoners and the community at large in the Criminal Justice System. Hamber (1999) pointed out that due to the actions of the Policing and Justice System of South Africa during the apartheid system, there remains a lingering mistrust of the rule of law and authorities.

2.2.6. INFRASTRUCTURAL PROBLEMS

The outdated architecture of many South African prisons has been regarded as being demeaning to the dignity of prisoners (Muntingh, 2009). While there have been smaller infrastructural improvements, these have not been able to address basic infrastructural problems. An audit from the Office of the Inspecting Judge of Prisons (2007) identified 21 prisons in which prisoners were not issued with eating utensils and containers, but were required to eat with their hands. It also revealed that in several prisons, prisoners were required to sleep on the floor, share beds with other prisoners or were issued with inadequate bedding. In addition, the results of the audit indicated that prisoner searches were conducted in a dehumanising manner and that male prisoners were required to strip naked in front of staff and other prisoners with no privacy. The

Office of the Inspecting Judge of Prisons (2007) reported that 94 per cent of prisons lacked facilities to separate prisoners with contagious diseases such as TB. The audit indicated that only 56 per cent of the prisons were equipped with classrooms and that only 40 per cent had workshops, as well as the fact that only 2 per cent of the sentenced prisoners were involved in production workshops. Furthermore, while 72 per cent of the prisons have designated eating areas, the audit results indicated that the majority were not used for their intended purpose and meals were taken in cells. Although access to adequate reading material is a constitutional requirement, the audit revealed that more that 40 per cent of the prisons were without libraries (The Office of the Inspecting Judge of Prisons, 2007). In view of the prevailing conditions in the prisons, it is unlikely that offenders will come out better citizens after serving a lengthy sentence. Furthermore, the continuous condition of overcrowding is responsible for many of the infrastructural problems identified by the Office of the Inspecting Judge of Prisons (Muntingh, 2009). It is also evident that overcrowding in prisons puts prison management under enormous pressure, rendering it difficult for the managers to function optimally. The Department of Correctional Services' proposal to build eight 3000-bed private prisons was not well received by civil society and South African Parliament, as it was felt that these changes would not improve the existing infrastructural problems. The concerns regarding the building of private prisons included those of costs and the pressure it would put on tax-payers. Muntingh (2009) recommended that in South Africa, more interventions were required to focus on the prevention of crime, sentencing procedures and effective social reintegration programmes. In order to achieve these goals, smaller prisons located closer to prisoners' communities are required. This would facilitate contact with family members and assist with reintegration. It is noted that South Africa's sentencing regime has resulted in over-utilisation of imprisonment and the neglect of non-custodial sentencing options, such as correctional supervision, restitution orders, and

community service orders, as well as suspended and postponed sentences. Factors such as race, gender and financial status are reported to continue to influence sentencing. A thorough pre-trial service has been recommended, where information regarding the accused is gathered prior the person's first appearance in court. Such information would include residential address, income, family involvement, work and community ties. These would then assist with regard to responses to bail application and ascertaining whether the accused is likely to abscond. It is recommended that the purposes of imprisonment are reframed such that the aims are not limited to the immediate treatment of prisoners and their conditions of detention but inclusive of the values of the constitution. This would mean that the purposes of punishment and the intended functions of imprisonment are clearly stated in keeping with the democratic constitution of South Africa, whilst promoting transformation of sentencing in the country (Muntingh, 2009; Luyt, 2008). In addition, there is a need to ensure that the White Paper Policy is relevant and promotes rehabilitation whilst ensuring that staff is clear on how to translate it into being part of everyday life in the prison setting. Problems that have been described above such as overcrowding need to be addressed. One recommendation is that prison population sizes should be aligned to available physical and human resources, thus ensuring good quality services. Budget has been one of the major concerns in the prison environment. There is a need to allocate the budget to address issues of staff attraction and retention, establish effective rehabilitative programmes and improve existing infrastructure. Similarly, it is recommended that the Judicial Inspectorate of Prisons should be mandated to conduct private and independent investigations (Muntingh, 2009; Fagan, 2006).

CHAPTER 3

3.3 CRIMINAL OFFENDERS AND MENTAL ILLNESS

A criminal offender is described as any party who is required to answer the complaint of a plaintiff or pursuer in a civil lawsuit before a court, or any party who has been formally charged or accused of violating a criminal statute (Burchell, 2004). In South Africa, as in most adversarial legal systems, the standard of evidence required to validate a criminal conviction is that of proof beyond a reasonable doubt. Teplin (1990) compared the prevalence of schizophrenia among 728 male prisoners with that of the general population. The prevalence in the prison population (2.7 per cent) was found to be three times higher than that of the general population (0.91 per cent) after controlling for socio-demographic factors. The strategic report of the Office of Presidency (2010) reported that violent crime was higher in South Africa than in most of the other countries of the world. This included the rates of murder, rape, aggravated assault, robbery, other property crime, and vehicle hijackings. Such high rates of violent crime, represent a major challenge for policy makers and law enforcers to make South African citizens safe and secure within their country.

Jemelka, Trupin and Chiles (1989) reported that jail detainees have a significantly higher rate of serious mental illness such as bipolar disorder, major depression and schizophrenia than the general population. Teplin (1994) found that approximately 6 per cent of men and 15 per cent of women who were admitted to Chicago's Cook County jail displayed severe symptoms of mental illness and required treatment. Ford, Trestman, Osher, Scott, Steadman and Robbins (2005) suggested that many serious mental illnesses were chronic and subject to exacerbation and relapse. The stress of incarceration could worsen symptoms in persons with preexisting mental

disorders, leading to acute psychiatric disturbances, including harm to self and others. Furthermore, inmates with histories of severe mental illness could potentially present an even greater risk of relapse and mental illness (Ford et al., 2005). Toch and Adams (1986) noted that inmates with psychiatric impairment might exhibit more serious and more numerous adjustment and disciplinary problems as inmates, for example refusal to leave one's cell or destruction of property during incarceration, when compared with the behaviour of unimpaired inmates. This requires a clear legal obligation for prisons to provide both health care and mental care for inmates.

Prieto and Faure (2004) conducted a study in France on the mental health of new prisoners and those monitored in the French prisons. The authors analyzed and monitored the psychiatric disorders of new prisoners and mental pathologies. They compared all subjects arriving in prison with those being monitored in the same period. The researchers found that most of the new prisoners were young (31 years on average) males (94%) and had severe social problems, e.g. 12% were homeless. They found that there were psychiatric symptoms in 40% of the subjects, largely, disorders associated with addiction and anxiety. By contrast, most of the prisoners being monitored in the French prison were older woman. The socio-economic characteristics of both groups were found to be similar. The authors found personality disorders represented in 34%, psychosis 8% and mood disorders in 7%. The studies concluded that psychiatric disorders andmental pathologies are very common in prison populations.

Steadman, Henry and Veysey (1997) reported that in a national survey of 1 706 U.S. jails, 83 per cent provided some form of initial screening for mental health treatment needs. They stressed that there was a pressing need to develop valid and reliable procedures to screen incoming detainees

for signs and symptoms of acute psychiatric disturbance and disorder. Similarly, Ford et al., (2005) recommended the use of formal correctional mental health screening for women and men (CMHS-W and CMHS-M). The CMHS-W consists of eight yes/no questions and the male screening tool has 12 ves/no questions about current and lifetime indications of serious mental disorder. The questionnaire has six questions regarding symptoms and history of mental illness for both men and women. The questionnaire was used to determine referral for further psychiatric evaluation. According to the White Paper in South Africa, there are no formal screening tools utilised but that they offer correctional services' programmes such as anger management programmes, crossroads correctional programmes, preparatory programmes on sexual offenders, pre-release programmes, substance abuse programmes, restorative justice orientation and new beginnings orientation programmes. The anger management programme is offered to all the prisoners who have just been sentenced. These programmes are specific in their focus and do not address assessment for a mental illness. Formal correctional assessment tools could help diagnose mental problems early and promote mental wellness. It appears that the presence of such tools would be of great benefit to the correctional service system.

Ford et al., (2005) looked at the mental screening proceedings for correctional services in the United States of America. The authors reported that it was important to have an existing psychiatric screening tool in a forensic setting and for the tool to be valid and reliable. It is essential that a detainee with a serious mental disorder is diagnosed, so as to avoid the potentially grave consequences of an untreated mental illness. In addition, Ford et al., (2005) also warned against over-diagnosing and over-referring, which could burden the already scarce resources with unnecessary referrals. In addition, correctional service staff should be trained in the administration of valid screening tools, which could also be computerised. Alternatively, trained

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nursing staff from local community psychiatric facilities could administer the screening tool to improve reliability. Given that prisons in South Africa are overpopulated with a very high rate of recidivism, accurate screens of inmates with psychiatric illness is essential. Furthermore, the limited number of psychologists, psychiatrists and mental health care workers in prison services is of great concern. A screening tool could prove very useful in detecting mental illness and further promoting staff sensitivity to mental health issues including diagnosis and referral for treatment.

Reid (2000) differentiated between jails and prisons. He defined jails as a place where one awaited trial after sudden arrest and that the process of waiting could take up to one year maximum. He refers to prisons as a stable community, where inmates could stay from one year to life imprisonment. Such a distinction is not made in South Africa. The terms prison and jails are used interchangeably. In South Africa, the correctional services consist of maximum security prison and/or jail section, where offenders with high sentences are kept. They also have medium security prisons and or jail section, where offenders with a sentence of less than 10 years are kept. Offenders with a sentence of less than ten years may also transfer from maximum to medium security sections. There is also a juvenile section in certain prisons.

Reid (2000) studied offenders with special needs and he found that it was easier for inmates to hide their vulnerabilities when they were awaiting trials in jails rather than prison. He argued that when inmates mixed with the same people for months or years, their weaknesses surfaced more clearly and they were vulnerable to exploitation. It is feasible that inmates with mental illness might still be mixed with ordinary offenders and continue to be exploited (Reid, 2000). Moreover, he argued that, although solitary confinement could be an alternative as it was safer,

there were substantial psychological consequences to isolation. In particular, inmates with a diagnosis of depression or schizophrenia might find isolation disturbing.

3.3.1. PREDISPOSING FACTORS TO CRIME

3.3.1.1 SOCIAL POLITICAL ECONOMIC FACTORS

South Africa is a developing country with a complex political history. The purpose of this section is to review the existing literature on factors such as social, political and economic factors and how they may contribute to an increase of criminal behaviour. It has been established that poverty alone does not cause crime (Demombynes & Olzer, 2002). However, it remains a huge contributing factor. The relationship between poverty and crime appears to exist, however the exact nature of the relationship can be difficult to pinpoint. In addition to higher crime rates, there may be higher unemployment, lower wages, high poverty neighbourhoods that have weaker access to health care and education, increased stress levels and high rates of mental illness. Many of these factors also appear to contribute to a higher crime rate (Weatherburn, 2001). The apartheid system in South Africa played a significant role in promoting and maintaining economic privilege to a select few and restricting financial opportunity to a large majority. Low socio-economic status and low income have been associated with a likelihood of engaging in criminal behaviour. This section examines how these contribute to criminal behaviour in the South African context.

Sociological theories tended to view social, political and economic factors at the root of crime. Social inequities and biases, poor economic conditions and political oppression are regarded as being likely to produce criminal behaviour (Seedat, Van Niekerk, Jewkens, Suffla & Ratele, 2009). Sociological theories emphasise the fact that people engage in criminal behaviours such as stealing to escape economic hardships (Swanson, Holzer, Ganju & Jono, 1990). Farrington (1995) conducted a study in Cambridge with 400 boys at the age of eight years from a working class neighbourhood and followed them up until the age of 32 years. His study assessed the relative importance of social pressures such as low income, individual style of upbringing including parental attitude and discipline, personal attributes such as intelligence, aggressiveness, and extraneous events such as mischance of being found out. He found that by the age of 32 years, about 37 per cent of the group had acquired a criminal record. He further found that: (1) 45 per cent of the boys rated as troublesome at school were later delinquents; (2) that hyperactivity at the age of eight to ten years predicted juvenile convictions independently of conduct disorder at that age; (3) that low intelligence and poor school attainment was associated with delinquency; (4) that there was evidence of family criminality; (5) that family poverty indicated by larger families with low income and poor housing resulted in later delinquent behaviour; and (6) that there was evidence of poor parental child rearing (Farrington, 1995). The study relied heavily on self-reports from the boys as well as peer reports. As a result, the reliability of the information gathered is skewed. In addition, the role of the extenuating factors, traumatic experiences and life stressors was not adequately addressed. Nevertheless, research has shown that after the apartheid years in South Africa, the rate of crime has increased (Masuku, 2003). The high levels of crime increase occurred during periods of political transition, coupled with instability and violence, suggesting a possible correlation between crime and conflict (Ikejiaku, 2009). During periods of instability, regular policing activities were diverted towards controlling violence, and crime levels consequently multiplied (Schonteich and Louw, 2001). The increase in levels of crime peaked and were highest in 1990, the year in which the political transition began. Statistics show that recorded levels of all crimes increased absolutely for the period 1990 to 1994. Most crime

increased significantly during this period: assault increased by 18 per cent; rape by 42 per cent; robbery by 40 per cent; vehicle theft by 34 per cent and burglary by 20 per cent (Shaw, 1997). Some offences such as homicides, theft and burglaries decreased between years 1995 and 2000. Though there were increases in major assaults, robberies and rape cases, generally there was a decrease (15.4 per cent) of all recorded offences. The implication of these figures is that what has actually increased in post-apartheid South Africa is the level of violent crimes and not property crime. The remarkable decline in property crimes accounted for most of the drop in the index offences between years 1995 and 2000 (Winslow, 2002).

There is no single explanatory answer to the question why South Africa has continued with high levels of crime compared to other African countries. Many scholars on crime studies support the perception that various factors have led to high crime levels in South Africa since apartheid. For example, Schonteich and Louw (2001) argue that there is no single satisfactory answer to this question of high crime rates in South Africa, but rather a number of explanations which help to explain the high levels of crime plaguing the country. Such explanations include the impact on the levels of serious crime of the country's ongoing political and socio-economic transition, the connection between the country's violent past and contemporary criminal behaviour, the impact of the proliferation of firearms, the growth in organised crime, changes in the demographic composition of the country and the consequences of a poorly performing criminal justice system. Rapid urbanisation and age are also important factors that need critical attention. There is a definite relationship between age and crime (Farrington, 1995). The most salient single fact about crime is that it is committed mainly by teenagers and young adults. Statistics based on mid 2011 estimate that 31.3 per cent of the South African population is under the age of 14 years and nearly half under the age of 25 years (Statistics of SA, 2012). Within this group, those between the age of five to nine years and 10 to 14 years were numerically largest population (Statistics of SA, 2012). It is therefore believed that since 1996 many of these children have moved into the crime prone ages of 12 to 19 years. Again, South Africa is a third most urbanised country in Sub-Saharan Africa, 56 per cent of the country's population is urbanised, up from 46 per cent in 1960 and 52 per cent in 1995 (Schontheich & Louw, 2001). Therefore, common characteristics of urbanisation, such as overcrowding, unemployment (which is currently 23.9 per cent according to statistics in South Africa 2012); increased consumer demands and expectations are associated with high crime rates. This suggests the impact of changing demographics on the crime rate in South Africa. In fact, on this issue, it is important to point out that high rate of urbanisation impacts negatively on crime in Africa because the region's rate of urbanisation is higher than its growth. Statistics put it at 4.87 per cent compared to 2.5 per cent annual growth in 2002. Also Africa is urbanising far more rapidly than the developed countries did, and nearly twice as fast as Asia and Latin America, however, unlike in other countries, Africa's urbanisation is occurring at a time of economic stagnation. This is resulting in premature urbanisation (the Report of the Commission for Africa, 2005). Another view is that some of the crimes, particularly drugtrafficking are committed by non-South African nationals.

Socio-economic disadvantage is often associated with both criminal activities in general and violent crime in particular (Swanson et al., 1990; CSVR, 2007; van der Merwe & Dawes, 2007). However, research has also shown that there are many poor people in South Africa who are lacking in income, employment and opportunity but who do not engage in either crime or violence. There is lack of research to explain this observation. Similarly, CSVR (2007) reported that there were many other countries in Africa, and the rest of the world, that have comparable, or worse conditions of socio-economic disadvantage than those in South Africa that do not manifest

the same level or degree of either crime or violence. In addition it is also noted that some violence in South Africa takes place in private, domestic situations, which are often underreported and are not confined to poor communities (Orkin, 1998; CSVR, 2007).

The most generally accepted factors contributing to violent crime are those of unfavourable socio-economic conditions which include illegal immigration, cultural attitudes to crime and violence, the presence of facilitating contributors such as the availability of firearms, drugs, and alcohol and inadequate regulatory systems (Louw, 2007; Strydom & Schutte, 2005). Louw (2007) pointed out that these risk factors were by no means unique to South Africa and that they also explained crime worldwide. Furthermore, in South Arica there are high rates of crime due to the fact that most of the risk factors are both prevalent and pronounced in the country. South Africa is currently noted as having the greatest inequalities in income distributions globally according to the Gini index, which measures relative degree of income inequality (International Monetary Fund, 2012; United Nations Statistics, 2011; United Nations Educational, Scientific and Cultural Organisation, 2012; World Bank Group, 2013). Seedat et al., (2009) reported on a detailed analysis of the relationship between socio-economic inequalities and violence. Their research was based on survey data from 63 countries. Income inequality, low economic development, and high levels of gender inequity were strong positive predictors of rates of violence, including homicides and major assaults. These researchers found that South Africa had the highest income inequality and the highest rate of homicide of the 63 countries studied. Although poverty and inequality were crucial social dynamics that contributed to South Africa's burden of violent injury, they are inseparably related to other key drivers, such as the dominant patriarchal constructions of masculinity, the intergenerational cycle of violence, alcohol, and drug misuse, and the proliferation of firearms (Seedat et al., 2009).

Various explanations have been identified to explain why people use violence in the pursuit of crime, including situations that require conflict resolution but may not lead to criminal proceedings such as at the workplace, teacher-pupil violence and domestic and family disputes (CSVR, 2007). The range of explanations for violence in South Africa can be conceptualised in terms of political and historical factors; environmental factors; and individual factors. In this conceptualisation the reasons for violence and violent crime in South Africa are multiple and interactive, and can combine in numerous ways and combinations. Van der Merwe et al., (2007) reported that violence had become normalised in the social fabric of South Africa. Many people in South Africa perceive violence as an acceptable means of solving problems and resolving conflict (Van der Merwe et al., 2007). This normalisation of violence has led to a culture of violence within various communities. Bruce (2009) has attributed the current culture of violence to South Africa's colonial and apartheid legacy. This culture of violence is described as the situation in which violence is seen as a way to address conflict and assert political interests. Similarly the culture of violence has also been attributed to the institutionalised violence, and informal racialised violence, which was directed against black people during much of the 20th century in South Africa (CSVR, 2007).

Hamber (1999) reported that the current high levels of violent crime and its multiple manifestations in South Africa stemmed from the legacy of the civil conflict of the past. Simpson and Rauch (1991) suggested that the extensive nature of politicisation in South Africa has ensured that a culture of violence has bled into the social and civic arena of society. Louw (2007) cited the development of a moral regeneration initiative that was Nelson Mandela's response to address the spiritual malaise, which he regarded as being the foundation of the problems with

crime in South Africa. These included the absence of good will, pessimism and the lack of hope and faith. As a result, problems of greed and cruelty, of laziness and egotism, of personal and family failure emerged (Louw, 2007). Burnett (1998) suggested that in the South African school context there has been a great emphasis placed on disciplinary measures such as corporal punishment, which in turn may have compounded experiences of institutionalised violence and contributed to a culture of violence.

3.3.1.2 EDUCATION

This section aims to discuss how education has been used in South Africa as a tool to limit educational attainment, restrict occupational opportunity and their contribution to high levels of crime. Research has demonstrated that education can serve as a protective factor against engaging in criminal behaviour. When people are well educated, their chances of obtaining secure employment that will provide for their means through socially acceptable ways are high. Conversely, low levels of education may contribute to poor living conditions and a likelihood of engaging in criminal behaviour to find quicker ways of relieving the frustrations that come with such conditions.

Apartheid laws in South Africa, such as the Bantu Education Act, No. 47 of 1953 limited Black people's quality of education attained (Bantu Education Act No. 47 of 1953). Hodgins (1992) suggested that low levels of education were associated with a high rate of crime. Education has an important role in influencing an individual's opportunity for success in society. In addition, the failure to attend school has been identified as a risk factor for later delinquency and criminal activity (Van der Merwe et al., 2007). A low level of parental education has also been identified

as a risk factor for future child offenders under the age of 13 years (Hodgins, 1992). Similarly, Van der Merwe et al., (2007) identified low school performance and aspiration, school drop-out, low maternal education, and low care-giver education as risk factors for violent offending. Burnett (1998) argued that the use of violence in South African schools to maintain classroom and social control served as a contributory factor to later violent behaviour. Education levels change the relative opportunities afforded by crime. Greater levels of education ensure greater returns from employment, making it more attractive and rewarding than crime. Weatherburn (2001) asserted that both low intelligence quotients and poor school performance directly increased the risk of involvement in crime. In addition, poor school performance was known to be a strong predictor of involvement in crime (Weatherburn, 2001).

Leoschut and Burton (2009) identified education as one of the most significant protective factors against offending. The matriculants in this study were nearly six times more likely than non-matriculants to resist engaging in crime. In addition, Leoschut et al., (2009) found that attitudes towards schooling were a significant protective factor. These authors discovered that rating schooling as personally important, wanting to achieve good marks and aspirations to do post-matric education, significantly predicted the likelihood of non-offending behaviour. They reported that young people who showed an interest in schooling and obtaining good marks were 31 times more likely to abstain from engaging in criminal behaviour as compared to those who did not show any interest in schooling. Leoschut et al., (2009) argued that resilience did not only stem from the individual but that it was also developed and maintained within particular contexts. The identification of the school environment as a context which gave rise to factors that have a diminishing effect on children's potential to commit crime was an important finding emerging from the study. Violence within schools, in particular, has emerged as a cause for serious concern

given the recent spate of attacks within South African schools that have claimed the lives of both pupils and educators (Leoschut et al., 2009). In addition, many intervention strategies aimed at reducing and preventing youth delinquency have had little impact on the levels of youth violence and crime at South African schools. There is a growing emphasis of the need for a more detailed analysis of the reasons why many young South Africans have been able to avoid becoming involved in delinquent and criminal behaviour despite being subjected to an array of factors that were known to heighten their susceptibility to offending. Such knowledge would be useful in informing crime prevention strategies that could be geared towards developing resilience in young people and thus diminish their involvement in criminal activity. It is clear that a focus on the school as a context for fostering young people's resistance to crime would not only benefit children academically but would also have a positive effect on the other factors that have been found to increase young people's vulnerability to crime. Furthermore, these studies suggest that by fostering a strong attachment to schools among children and young people as well as a commitment to completing schooling, it would not only increase the employability of young South Africans but would also have a diminishing effect on the levels of youth crime and violence by increasing the resistance of youth to this social phenomenon (Leoschut et al., 2009). Educating the teachers about the impact of violence including corporal punishment becomes essential. The educators would need to embrace and support the use of alternative forms of discipline in schools and act as role models for the children in creating and promoting a nonviolent and safe environment in schools.

3.3.1.3 ECONOMIC / UNEMPLOYMENT

Seedat et al., (2009) reported that poverty and inequality were crucial social dynamics that contributed to South Africa's burden of violent injury. Economic factors such as wealth, poverty or deprivation and unemployment put individuals at risk of criminal offending.

Since 1994, despite a new democratic dispensation, there remains a high rate of unemployment in South Africa. The role of rapid, abnormally high rates of urbanisation and urban unemployment appear to be related to high levels of crime reported. Masuku (2003) has stated that until 1986, the majority of Black South Africans were confined to the rural areas by influx control measures which were part of the apartheid system. When influx control was removed in 1986, it released a massive influx of people to urban areas where cities were unprepared and under-resourced to deal with the rising influx of population. This led to inadequate housing, overcrowding, increased substance or alcohol abuse, teenage pregnancies, social problems and increased crime.

In a comparison of crime figures from 1994/1995 to 2000/01, Masuku (2003) found that the number of crimes increased by 20 per cent. In the seven years (1994/95 to 2000/01), violent crime increased by 33 per cent, which was the highest in any crime category. Interpol (1996) reported that during the period 1950 to 1993, about 309.58 murders were committed. It revealed that in 44 years, the average of murder crimes committed was 7.04 per year. Between the four year periods of 1995 to 2001, the number of people murdered in South Africa is reported to have been 287.29 averaging to 47.88 per year. The Nedcore Project (1996) concluded that South and Southern Africa are probably the most murderous societies in the world, with probable under reporting suspected.

The World Economic Forum Annual Report 1998/1999 noted that the 1996 figures showed that one in four police officers in greater Johannesburg were under criminal investigation. Shaw (2003) at the Institute for Security Studies (2001) indicated that crime grew more rapidly in periods of political transition and violence. According to Shaw (2003), when state resources were concentrated in certain areas only, gaps emerged in which organised criminal gangs could operate. Organised crime has doubled under the new political dispensation. The Crime Information Analysis Centre of South African Police Services (2003) documented that organised crime may, contrary to popular belief, have contributed less directly to the crime statistics as far as violent crime was concerned. For example, hijackings were mostly organized and at most they contributed approximately 60 murders of the 25 000 murders committed per year (i.e. 0.2 per cent of the total volume of murders). The increase of violent crime in South Africa has been reported to be related to a low standard of education, a lack of social and vocational skills, poor housing and living conditions, lack of parental skills, overcrowding, and a lack of infrastructure and development.

3.3.1.4 FAMILY ENVIRONMENTAL FACTORS

Research has shown that a close family structure with strong values can act as a buffer against crime. Family systems in South Africa were disrupted during the years of apartheid possibly leading to high rates of crimes.

In South Africa, particularly during the years of apartheid, various psychological, social and economic difficulties may have contributed to the current increase in crime or criminal behaviour. During this period South African families were characterised by disruption, missing parents, harsh and inconsistent discipline, physical and emotional abuse, and inadequate limitsetting. These factors led to low self-worth, lack of self-confidence and violent behaviour in children and youth by undermining motivation for self-control, achievement and a loss of parental control. Smit (2001) criticised the migrant labour system in South Africa for its detrimental effects on family life among Blacks bringing about the fragmentation of the nuclear family and extended family network. Migrant workers were for the most part absent during the critical years of marriage and child rearing. In a qualitative study Smit (2001) found that most children of migrant workers associated family life with being a member of a woman-headed household, often a grandparent. They grew up in an environment without a father figure or a mother figure. He further highlighted that this resulted in the breakdown of family structures, and in instability as well as problematic relationships between children and their parents. Most of the participants reported that they grew up with their grandparents and lost their attachment to their biological parents. Grandparents often found an increased number of grandchildren to care for overwhelming (Smit, 2001).

Families to a large extent remained fragmented possibly due to historical factors related to the apartheid system but also due to a rapid pattern of urbanisation. The fragmentation of the family unit has had profound implications for the quality of attachment in displaced youth. Children and youth with impaired attachment are at greater risk for behaviour and conduct problems (Zeenah & Boris, 2000). Masuku (2003) argued that it was internationally accepted that urbanisation of the youth, i.e. 15 to 29 years age and the accompanying social processes were extremely conducive to crime.

Weatherburn (2001) has shown that family environment and parental behaviour form an important risk or protective factors in relation to involvement in crime. Parental behaviour plays a strong role in shaping a child's risk of later involvement in criminality. Parental criminality appears to be strongly correlated with an increased risk to child conduct problems, antisocial tendencies and later involvement in criminal behaviour. Parental criminality involves shared environmental, genetic and biological risk factors, as well as parental negative behaviour modelling. Children who experience inconsistent and harsh parental practices, such as lack of parental supervision, severe physical punishment, low levels of warmth and parents' rejection, reveal increased rates of conduct problems, substance abuse, depression, anxiety and violent crime in early adulthood. Furthermore, family violence and maltreatment of children have significant inter-generational effects on an individual's likelihood of engaging in criminal behaviour (Weatherburn, 2001).

Weatherburn (2001) reported that parenting factors contributing to the risk of delinquency can be categorised into four groups. Among these are parental neglect, which would include factors such as large family size, poor parental supervision and inadequate parent-child interaction. Secondly, there are the factors associated with parental conflict and discipline such as abuse, nagging, harsh, erratic or inconsistent discipline. Then there are factors that are associated with parental deviant behaviours and attitudes such as parental criminality, parental violence or tolerance of violence. Lastly, Weatherburn (2001) referred to factors associated with family disruption such as chronic spousal conflict or marriage break-up as contributing to delinquency. Furthermore, he argued that factors associated with neglect were the strongest predictors of a likelihood of engaging in criminal behaviour.

Durkheim (1893) introduced the concept of anomie, which he used to describe a condition of deregulation that occurred in society. According to Durkheim, a normless society occurs when norms or expectations of behaviour are unclear, confusing or absent. Anomie thus refers to a breakdown of social norms and it is a condition where norms no longer control the activities of members in society. This leads to deviant behaviour. It could be argued that nn South Africa, high levels of urbanization may have brought about Durkheim's concept of anomie, thus increasing deviant or criminal behaviour. Durkheim observed that social periods of disruption, economic depression, brought about greater anomie and higher rates of crime, suicide, and deviance.

Leoschut et al., (2009) used Hirschi's social control theory to explain the differences in offending by males and females. They argued that control theories are premised on the idea that certain factors such as family relationships serve to restrain people from offending. In addition, they argued that young people who were more attached to their caregivers and who accepted parental regulations were more inclined to accept and conform to conventional society. It would seem that such social bonds limited involvement in antisocial activities (Leoschut et al., 2009).

Leoschut et al., (2009) found that being raised in homes where family members seldom lose their tempers, do not resort to physical violence when they became angry, and where parents or caregivers do not employ physical punishment as a means of effecting discipline, significantly predicted non-criminal behaviour. They found that young people who were raised in homes where disputes were resolved without violence were 6.8 times more likely to refrain from engaging in criminal behaviour than those who were raised in violent homes. Furthermore, it was

noted that those who were not physically punished for their wrongdoings were twice as likely not to offend as young people in comparison to those whose caregivers physically hit them as punishment for their transgressions. In addition, Leoschut et al., (2009) reported that, although both offenders and non-offenders were exposed to various forms of violence within their homes, the offenders were significantly more likely to be exposed to more violent family relations. The link between family violence exposure and subsequent criminal victimisation was identified as a risk factor for offending. Family violence exposure heightened the susceptibility of young people to violent crimes such as assault and robbery (Leoschut et al., 2009). Furthermore, non-exposure to criminal role models was found to be another significant predictor of the non-offender behaviour. Young people who were not exposed to antisocial role-models within their family environments have been more likely to refrain from criminal behaviour than those who have been exposed to such role models. Not having family members who had in the past year engaged in any unlawful activities, such as stealing, selling stolen goods, mugging and assaulting others, was also a significant variable in predicting resilience (Leoschut et al., 2009). Furthermore, their findings were consistent with the results of mainstream theories which proposed that children and youth learn to become offenders when raised in environments surrounded by antisocial rolemodels. Much of the violence within families appeared to stem from an inability to resolve conflicts constructively (Leoschut et al., 2009). Their findings pointed to the need for targeted interventions aimed at raising awareness about appropriate conflict-resolution techniques, as well as alternative methods of discipline.

3.3.1.5 COMMUNITY AND PEERS

After families have disintegrated, it is not surprising that there would be an increased reliance on outside influences and support systems. The effects of community and neighbourhood on

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criminality are difficult to measure. However, they appear to exert an influence on antisocial behaviour and crime. Research has shown that antisocial peer groups have played an important part in the development of deviance and violence. Leoschut et al., (2009) have found that males were more likely than their female counterparts to have friends who engage in delinquent activities, and that males were more vulnerable than females to the negative influences of their deviant friends. Leoschut et al., (2009) found that the interaction with non-delinquent peers was one of the important predictors of being a non-offender. They reported that those who had best friends who had never been arrested, dropped out of school, used illegal drugs, been suspended from school, or had stolen or tried to steal a motor vehicle, significantly predicted non-offender behaviour. Therefore, Leoschut et al., (2009) concluded that young people who have best friends who had never been arrested were 5.7 times more likely to refrain from engaging in criminal behaviour than those who did interact with peers who had been arrested. Similarly, those whose best friends had never dropped out of school were twice as likely to not commit an offence as those young people whose best friends had dropped out of school.

Not having access to firearms within the neighbourhood was found to be a significant predictor of non-offending behaviour. Young people who did not have access to weapons in the areas in which they lived were 2.7 times more likely to refrain from becoming involved in criminal activity than those for whom it was easy to obtain a firearm in their residential areas. Leoschut et al., (2009) concluded that the availability of firearms increased the youths' susceptibility to crime by increasing their immediate opportunities to offend. They further argued that the offenders' greater access to firearms could be reflective of the type of lifestyle the latter were likely to lead. The availability and alarming rise in the theft of firearms and firearms reported lost, exacerbate the incidence of violent crime (Gould, Lamb, Mthembu-Salter, Nakana & Rubel, 2004). Similarly, Keegan (2005) noted that many South African victims of violent crime are likely to be attacked or threatened with a weapon. In addition, the highest gun-related homicides rate occurs among African and Coloureds (Keegan, 2005).

Researchers have recognised neighbourhood social and economic indicators as important factors in child development and negative outcomes such as criminal offending (Chung & Steinberg, 2006; Morenoff, Sampson, & Raudenbush, 2001; Shaw & McKay, 1969). Furthermore, it has been shown that lack of income did not sufficiently describe communities in distress but that high drop-out rate among young adults, high rates of unemployment, receipt of public assistance, vacant or abandoned housing, and overcrowding were most likely indicators of such communities (Currie & Yelowitz, 2000). In addition, the authors argued that completing high school has an impact on employment prospects and individual social mobility. In turn, pervasive joblessness impedes sustainability of economic revitalisation efforts in impoverished communities. Employment opportunities are strongly correlated with institutional investment in communities. In instances where businesses and financial institutions leave an area, those sites are often left vacant, which then become sources of crime and vandalism, creating a downward cascade in community quality of life (Currie et al., 2000).

Anderson (2002) argued that neighbourhoods plagued by high levels of poverty, inadequate housing, unemployment, and single-parent homes were often hard pressed to offer positive models of pro-social behaviour. In addition, he found that the youths were more likely to be unsupervised, and informal communal controls of behaviour were weak in distressed communities. Moreover, few examples were offered to the youth regarding the benefits of that pro-social behaviour, thus encouraging financially rewarding yet high-risk communally destructive behaviours such as gang involvement, drug trafficking and prostitution as a means of coping, self-protection, and advancement (Anderson, 2002). Onifade, Davidson and Campbell (2009) argued that neighbourhoods that were perceived as troubled received greater attention from law enforcement; and that as a result, there was greater opportunity for delinquency to be detected by formal systems serving those communities.

Onifade, Petersen, Bynum and Davidson (2011) assessed the likelihood of risk of re-offending among youth examining areas such as past and current offences; recreation; education or employment; peer relations; substance abuse; parenting and family circumstances; attitudes; personality and behaviour (Schmidt, Hoge & Gomes, 2005, Hoge & Andrews, 2002). They drew on archival data collected by the local court's juvenile delinquency division and had a sample of 585 youth between the ages of 10 and 18 years (X = 14.9 years) placed on formal probation by the court. The authors reported that of the offenders, 23 per cent were considered low risk, 55 per cent were considered moderate risk, and 22 per cent were considered high risk. Furthermore, in their sample 34 per cent had recidivated over a two-year period. The results of their study showed a number of factors contributing to recidivism. The first factor was household hardship that included high school drop-out rates, residential overcrowding and reliance on public assistance. The second dimension was best described as reflecting household instability and included the neighbourhood rental property rate, household vacancy rate, and single-parent household rate. They found that single-parent households were more likely than dual-parent households to rent their homes and to have difficulty with housing costs, which resulted in higher rates of housing instability. This study did not provide a cumulative risk model that could be easily translated for practitioner use but rather focused on demonstrating the differential predictive validity of the risk assessment with youth from differing neighbourhood types. (Lohmann & McMurran, 2009).

Future research is needed to assess how neighbourhood residents define the boundaries of their neighbourhoods. In addition, Lohman et al., (2009) have suggested that research could include aspects where values and policies interact to influence the outcomes of individuals. For example, certain laws and policies affect only certain neighbourhoods or sectors of society. Therefore, there would be a higher probability of offence for members in those neighbourhoods or sectors of society (Lohmann et al., 2009). According to the 2012/13 national average statistics, of the 150 608 inmates, youth comprised 45 842 inmates. Of the youth offenders, 26 349 (25 per cent) were sentenced, 19 493 (43 per cent) were remand detainees and 846 were females (512 sentenced females and 334 female remand detainees). These figures reveal that the South African youth comprise one third of the country's offender population.

3.3.1.6 CHALLENGES TO HEALTH / MENTAL HEALTH CARE

During the years of apartheid in South Africa, health care and medical treatment were not equally distributed. Black people received poor quality care. Post-apartheid South Africa has attempted to improve the distribution of health resources or equal access to health care. However, specialised care remains in the cities and not always easily accessible to the rural public. There is still a lack of awareness of certain services. Resources remain limited in the health sector. For example, there are insufficient mental health care professionals who are only able to service a limited number of people. Prisons are poorly resourced with regards to such services. Specialised psychiatric hospitals remain a scarce resource.

Limited resources and limited access to care in the health sector has negative consequences for the promotion of health and mental health in particular. Research studies are explored in further understanding challenges faced by mental health care practioners, families of patients and the users. Reid (2004) identified four factors in understanding the relationship between schizophreniform disorders and severe family violence. Firstly, violence in such cases may be instigated by a pattern of hallucinations and delusions. These patients may have committed a crime or be violent or aggressive towards a family member as a result of command hallucinations. Research has shown that most psychiatric patients commit crimes whilst they were under the influence of their mental illness. Secondly, medication and compliance have been linked to family violence in the cases of schizophreniform disorders (Reid, 2004). Most of these patients were either not adequately taking their medication or were not appropriately medicated. A third factor is poor access to, or insufficient admission time in, psychiatric hospitals. Reid (2004) noted that many tragedies occurred immediately after discharge from inpatient care that has been too short for adequate diagnosis, meaningful stabilisation or assessment of medication response. This is of tremendous concern in a country like South Africa, where there are limited numbers of psychiatric hospitals or admission settings with limited bed numbers. In 1955 there were 13 South African government mental hospitals caring for 17 881 patients and currently there are 24 registered public psychiatric hospitals accommodating 14 000 acute and long-term care patients (Emsely, 2001). Fourthly, those patients who have no alternative place to live other than with their parents were at risk of committing family violence. Reid (2004) has pointed out that the parents were more likely to be victims of convenience or to be in a zone of danger when a patient becomes violent. In South Africa, there are limited placements that cater for psychiatric patients and there is also a shortage of housing. As a result, psychiatric patients are likely to be discharged to their families prematurely. Such placements may serve as a support base for the patient whilst placing the family members at risk for violence. Isaac and Armat (1990) argued that the drastic reduction in hospital admission resulted in families becoming extensions of inpatient units. In addition, they noted that because there was an increasing move towards

deinstitutionalisation, many families have had to function as psychiatric nursing staff and therapists. These authors noted that in many instances families are not sufficiently serviced or resourced to manage their mentally ill relatives. In addition, they observed that some families became outraged and that their anger was directed at hospital staff members whom they held responsible for prematurely discharging the patient as well as the patient for being sick and bringing shame upon the family or putting family through such adversity. In South Africa, a move towards deinstitutionalisation has been urged but, this has been done without adequate resources (Petersen, Bhana, Campbell-Hall, Mjadu, Lund, Kleintjies, Hosegood & Flisher, 2009). Isaac et al., (1990) argued that the alliance between the family and clinicians, which is an essential part of the patient's treatment, was severely compromised by this approach.

Patients with a diagnosis of suicidal depression commonly endanger family members (Reid, 2004). The high prevalence of severe mood disorders would possibly suggest an increased number of people at risk of endangering the lives of significant others. Furthermore, he reported that pre-existing mood or schizophrenia-like disorder of mothers with post-or peripartum syndromes had the potential to make them more dangerous, thus making their children vulnerable to behaviour arising from the parents' delusions and hallucinations. Parents' mental illness is likely to leave children feeling unsafe, unstable and living in an unstable home environment, which has been linked to the development of delinquency and criminal behaviour later in life. Furthermore, Ekselius, Von Knorring, Lindstrom and Persson (1994) found that antisocial personality disorder was more frequent in patients with schizophrenia-like psychosis than in true schizophrenia; suggesting that thorough screening should be conducted in cases where schizophrenia and antisocial personality disorders are diagnosed together. These authors found that 72.4 per cent of the patients with psychotic disorders had at least one personality disorder

and that the most common ones were paranoid, avoidant, dependent and obsessive-compulsive personality disorders. Hare (1991) recorded that one out of three patients with antisocial personality disorder will have severe psychopathy, which is reported to have poor prognosis. Thorough screening for mental disorders and appropriate referral for treatment is often indicated. Mental health care services and staffing remain a challenge in South Africa.

3.3.1.7 HERITABILITY

This section discusses the role of biological influences in predisposing factors to mental illness. Stone, Roberts, O'Grady, Taylor and O'Shea (2000) stated that delinquency and antisocial behaviours often run in families. Studies of criminality in twins have shown a greater concordance for monozygotic than for dizygotic pairs (35 per cent to 13 per cent) (Rhee & Waldman, 2002). Furthermore, Mednick and Finello (1983) conducted an adoption study, where they divided the biological and adoptive parents into criminal and non-criminal groups and looked at delinquency patterns in the adopted children. They found a higher rate of delinquency in children of criminal biological parents placed with non-criminal adoptive parents, i.e. 20 per cent compared to the 14.7 per cent in children of non-criminal biological parents placed with criminal adoptive parents. It was concluded that both upbringing and inheritance contributed towards delinquency, but that biological weighting seemed more important. Moreover, there was evidence that part of the predisposition to crime arose from an inherited tendency to abuse alcohol.

Conversely, Weatherburn (2001) challenged evidence consistent with the idea that genetic factors make a contribution to the risk of involvement in crime. He argued that such studies could not be taken as conclusive, firstly due to the method often used of selecting twins for separated twin

studies, as it could potentially inflate the chance that both would be found to have a criminal record. Although there was some statistical evidence consistent with the possibility that there might be inherited factors in crime, such evidence has other ways in which it could be interpreted without implicating the genetic factors. For example, the quality of the interaction between children and their adopted parents may itself increase the risk of later involvement in crime.

3.3.1.8 ATTITUDE TOWARDS CRIME

Leoschut et al., (2009) reported that never having had the experience of being the victim of crime was found to be a significant protective factor against offending. They reported that young people who had never been the victim of crime were six times more likely not to commit a criminal offence than those who had been robbed, assaulted, raped/ sexually assaulted, hijacked, had their home burgled or their property stolen. This could be interpreted to mean that those exposed to crime repeat crime, having learnt to do so, or do so because they wish to retaliate in some fashion.

Leoschut et al., (2009) further reported that intolerant attitudes toward violence and antisocial behaviour significantly predicted non-offending behaviour. Alternatively, this finding may be compounded by a socio-economic factor, where those individuals not exposed to crime reside in protected privileged communities where sociological and socio-economic factors protect them. Leoschut et al., (2009) asked participants to respond to a number of questions aimed at eliciting their attitudes toward antisocial behaviour. The findings indicated that only those young people who did not believe that people who hurt them deserved to have bad things happen to them were significantly more likely to refrain from committing criminal offences than those who felt that people who hurt them did deserve to have bad things happen to them. Specifically, young people

who did not believe that people who had hurt them deserved to have bad things happen to them were twice as likely not to offend as compared to those who held the opposite opinion. In addition these researchers argued that violent victimisation had serious implications for the physical and emotional well-being of children and young people, and that it affected their educational outcomes. They also found that violence exposure heightened youths' susceptibility to criminal victimisation. Reducing the levels of violence that young people are exposed to in their families and communities is likely to diminish their vulnerability to victimisation, and thereby increase their resilience in resisting criminal behaviour.

3.3.1.9 DEMOGRAPHIC FACTORS

This section discusses how factors such as age, gender and race may be used to identify people who are more likely to be at risk for criminal offending. Such information could be useful to inform assessment strategies in the forensic and community settings, as well as in formulating prevention programmes. For example, youth empowerment programmes may use such information to create facilities directed at addressing a group of young people identified to be more vulnerable to engage in criminal behaviour. In South Africa, crime has been identified by the government as a priority issue. Of concern for policy makers, the police and social crime prevention practitioners, is the fact that young people are significantly more likely than adults to be either the victims of crime or offenders (Leoschut et al., 2009). The Census of 2011 South Africa indicated that children and young people made up a major sector of South Africa's population with approximately 26 per cent of the country's population being 24 years of age or younger. Research has indicated that the ages between 12 years and 21 years are the peak years for both offending and victimisation (Sherman, Gottfredson, Mackenzie, Eck, Reuter & Bushway, 1998). This raises important concerns with regards to prevalent information, as a large

proportion of South Africa's population falls within this 'high risk' age cohort. Furthermore, serious youth criminal and anti-social behaviour are generally viewed as a consequence of the interaction between a range of factors, including both genetic and environmental factors such as being victims of crime, exposure to crime as means of relieving immediate frustrations, or an environment where crime is a norm. Despite these indicators, it remains unclear as to why there are young people who do not commit crime despite being raised in environments fraught with the risk factors for offending.

In an attempt to address this gap in understanding, particularly within the South African context, Leoschut et al., (2009) of the Centre for Justice and Crime Prevention designed and undertook a youth resilience study. The objective of the study was to identify why young people from highrisk environments, refrained from engaging in criminal or violent behaviour. The study investigated two sets of samples, the offending sample, which included young offenders, their parents or primary caregivers and siblings; and the non-offending sample comprising young nonoffenders, their parents or primary caregivers and siblings. In the study, offenders' families were traced back to their home communities. The non-offender samples of young people, siblings and caregivers were drawn from the same communities as the offenders. Researchers such as Burton (2009) have recommended that studies investigating people who chose not to commit crime are best suited to provide information on the factors that discourage youth criminal behaviour. In the Leoschut (2009) study, both sets of samples had the life history, community context, family and peer networks, access to resources and services, level of education, life opportunities and employment possibilities of the respondents explored. Nine key factors that served to enhance the robustness of young people to engage in crime were identified. These included factors such as level of education, gender, non-family environment, non-exposure to criminal role models,

substance abstinence, interaction with non-delinquent peers, victimisation, neighbourhood factors as well as, attitudes intolerant of violence and antisocial behaviour. In a similar study, Louw and Strydom (2005) added that violent crime was more prevalent amongst younger people, that is, the younger a person was at the time of the first violent offence, the greater the likelihood of recidivism.

Leoschut et al., (2009) found that gender was a significant protective factor against offending. They reported that females were 15 times more likely not to engage in offending behaviour than males. The socialisation processes of both males and females in their homes were identified as being factors to explain the different relationship between gender and crime. Kim and Motsei (2002) looked at social attitudes and roles, with a specific focus on gender, and found that violence against women was pervasive in South Africa as in many other countries. Cultural values and norms served to condone and reinforce abusive practices against women (Kim et al., 2002). The CSVR (2007) noted that in South Africa, as is the finding internationally, the perpetration of violence was overwhelmingly the domain of men. However, Louw et al., (2005) argued that violence perpetrated by women may be underestimated because women were more inclined to choose family members as targets of violence, for example spouse and/ or children. Such violence often remains private and unreported. The prevalence of female offenders has been reported as being between eight per cent and 18.3 per cent depending on the level of industrialisation in countries, and it is generally low in comparison to male offenders (Stuart & Brice-Baker, 2004; Bonta, Pang & Wallace-Capretta (1995). In general there is little research on recidivism by female offenders (Salomone, 2004). This supports the statement that gender serves as a protective factor for women.

The general criminology perspective tends to view the factors responsible for female crime as being essentially the same as those for male crime (Bonta et al., 1995). Andrews and Bonta (2003) identified the most validated risk factors for criminal behaviour and the most reliable predictors of recidivism as: anti-social attitudes, anti-social associates, a history of antisocial behaviour and anti-social personality pattern. The antisocial personality pattern includes: psychopathy, impulsivity, restless aggressive energy, egocentrism, below average intelligence, a taste for risk, poor problem solving and poor self-regulation skills. Furthermore, problematic circumstances at home, such as low levels of affection, caring and cohesiveness, poor parental supervision, neglect and abuse; problematic circumstances at school or work, including low levels of education and achievement as well as unstable employment history, poor use of recreational time and substance abuse, were all identified as risk factors for criminal behaviour. Andrews et al., (2003) argued that the ability to predict criminal behaviour increased with the number and variety of major risk factors assessed and with the number of different sources of information used. The authors reported that the importance of school/work, personal distress, and non-criminogenic interpersonal targets remains unclear among women and minorities. However, in their study the correlates of criminal behaviour appeared highly similar for males and females.

Farrington and Painter (2004) researched whether risk factors for offending differed for males and females, by examining the brothers and sisters of males included in the Cambridge Study in Delinquent Development. They concluded that the important risk factors were similar for brothers and sisters, viz. low family income, large family size, attending a high delinquency rate school, a convicted father, a convicted mother, a delinquent sibling, parental conflict, separation from a parent, harsh or erratic parental discipline and poor parental supervision. The authors reported that some of the factors that predicted offending behaviours more strongly for sisters were low social class, low family income, poor housing, infrequent praise by parents, harsh or erratic discipline, parental conflict, low parental interest in education and low parental interest in the children. Factors that predicted offending behaviours more strongly for brothers included factors such as nervous fathers and mothers and poorly educated fathers and mothers. The researchers concluded that the risk factors were better predictors of the offending behaviour of sisters than of brothers and that risk assessments using family factors were likely to be more accurate for females than for males (Farrington et al., 2004). However, there remains a lack of research indicating why there are significant gender differences in crime rates overall.

Loucks and Zamble (2000) concluded that there were considerable similarities in the factors predicting recidivism in serious offenders, regardless of gender, such as age at first arrest. Psychopathy, in particular, was as important in predicting general offending in female serious offenders as it was in serious male offenders and it played an important role in the prediction of violent behaviour and prison maladjustment, as it did for males (Loucks et al., 2000). The authors reported that measures of personality and current functioning contributed most to the prediction of criminal and violent behaviour and of prison misconduct in female offenders. Interestingly, Arnold (1994) supported gender-specific theories of female criminal behaviour. He proposed that the process of criminalisation was initiated by gender oppression, class oppression and victimisation and that crime was considered to be a response to alienation and structural dislocation from family, education and work. Although experiences such as trauma, victimisation and moderate to severe depression may have played an important role in the origins of anti-social behaviour in females, Loucks et al., (2000) stated that those were not significant in explaining

serious or repeated offending. These authors made an exception in the case of pre-adolescent sexual abuse as a significant predictor for violence (Loucks et al., 2000).

Stuart et al., (2004) explored variables that correlated with higher rates of recidivism in adult female prisoners. They concluded that five static variables were significantly correlated with recidivism. These variables included age, arrests while under legal supervision, type of offence, age of first imprisonment and not looking forward to release. The authors argued that older offenders had higher recidivism rates than younger offenders. The researchers further commented that criminal behaviour in older women, often first-time offenders, might not be a continuation of a pattern that originated in young adulthood. Furthermore, they stated that arrests while under legal supervision positively correlated with higher rates of recidivism. In addition, they argued that the type of offence in particular drug or property offences significantly correlated with higher rates of recidivism. Stuart et al., (2004) reported that the younger age of first offence was correlated to higher rates of recidivism as well as not looking forward to prison release. It is noted that the violent offenders in their study had the lowest recidivism rates, possibly because of longer sentences and subsequently less time spent outside of prison and fewer opportunities to reoffend. (Stuart et al., 2004).

In a study of 300 male and female graduates from a bootcamp, Benda (2005) tested the position of Sampson and Laub (2006) that desistance from crime could be explained by social bonding that occurred in adulthood transitions that represented turning points in people's life-course trajectories. The study found that childhood and recent sexual and physical abuse, adverse feelings, living with a criminal partner, and drug use were particularly powerful predictors of women's recidivism. In addition, the author reported that most life changes, except years of education, were inversely and significantly related to recidivism, and that forming a family with a caring partner served as a buffer for women (Benda, 2005). In a similar vein, Covington (1998) also pointed out that women's capacity for relatedness and connection was a particular source of strength and that it served as a buffer for women. He reported that attachment and relationships were important for women and that the focus on female development and mutual, caring, and empowering relationships could be useful tools for correctional programmes for women and girls. Odgers and Moretti (2002) added that, although aggressive females were more likely to desist from offending during their transition into adulthood, they appeared not to function well in other domains of life. Benda (2005) supported previous research on predictors of recidivism for men that included criminal associates, aggression, carrying a weapon, drug use, young age and early age of onset of crime and job satisfaction.

3.3.1.10 CLINICAL / PSYCHOLOGICAL FACTORS

Clinical factors and the psychological understanding of criminal behaviour are explored. It proposes to look at the individual factors and intrapsychic processes that make a person more vulnerable to criminal behaviour. Van der Merwe and Dawes (2007) in a South African based study reported that a wide range of psychological conditions and attributes had been linked to violent behaviour, including low self-worth, lack of self-confidence, lack of self-control, hyperactivity, impulsivity, risk-taking, attention-deficits and early-onset conduct problems. Furthermore, the researchers argued that these conditions were more likely to occur where there had been disrupted family life and fractured socialisation. Alternatively, clinical theories place the causes of criminal conduct within the individual rather than with broad societal factors. Individual-based theories argue that people commit crimes because they have emotional, psychological or intellectual problems. Stone et al., (2000) argued that low intelligence was a factor in delinquency. It remains unclear as to why people overwhelmed by life stresses may use illegal drugs, or when others may search for non-criminal solutions to personal anguish. It would appear that an integration of both clinical and sociological theories could assist in the understanding of predisposing factors to crime. Kumar and Simpson (2004) conducted a comparison study on the clinical and actuarial approaches to risk assessment for violence in general adult psychiatric patients. These authors concluded that there was a need to shift from risk prediction to risk assessment, risk management and risk reduction. Furthermore, they suggested the need to merge the actuarial approaches.

CHAPTER 4

4.1 MENTAL HEALTH AND LAW

South Africa has a long history of political and human rights struggle due to its apartheid history. In 1995, the world witnessed the evisceration of apartheid and the birth of a new democratic South Africa. In light of the struggle endured by the visible portion of the South African population, McCrea (2010) asked about the effects of the impact of apartheid on what was termed the forgotten and somewhat invisible individuals, those who suffer from mental illness. McCrea (2010) discussed South Africa's mental health legislation, the Mental Health Care Act, No. 17 of 2002, and conducted a comparative study with the African Banjul Charter (2009), the UN Principles (1991) for the protection of persons with mental illness, and the World Health Organisation Principles (2004).

Historically in South Africa, the Mental Health Care Act 18 of 1973 came into being after the public panic following the assassination of then Prime Minister, Dr. Hendrik French Verwoerd by someone deemed to be mentally ill (Haysom, Strous & Lloyd, 1990). These researchers added that a Commission of Inquiry (1966) into his death revealed that many assassinations were committed by mentally disordered persons. As a result of this conclusion by the Commission (1966), there was a proposed amendment, which eventually culminated in the South African Mental Health Care Act of 1973. McCrea (2010) reported that the focus of the South African Mental Health Care Act of 1973 was not one of concern for the individual but rather on patient control and treatment, along with the welfare and safety of the society. The fact that this Act was formulated during the apartheid era cemented the view that the human rights of the patients were

not necessarily the priority (McCrea, 2010). The South African Mental Health Care Act 1973 has been criticised because it only required a reasonable degree of suspicion for a person to be certified to a mental institution; individuals could potentially be denied their freedom and placed in a mental facility based on prejudices and vendettas. Burns (2002) suggested that being mentally incapable was at times utilised solely for political means in the apartheid era and freedom fighters were often silenced by being placed in a mental facility. Furthermore, once they had been deemed mentally ill and certified, patients went without the assistance of the law, and could spend a considerable amount of time in the mental institutions against their will, and patients did not have a significant right of appeal or representation (Burns, 2002). However, claims that psychiatry was abused as a means of political repression were never confirmed (Van Voren, 2010). Nevertheless, in South Africa, the racist policies of apartheid resulted in very unequal mental health resources for the white ruling class and the black majority of the population.

According to the South Africa Federation for Mental Health, while the Mental Health Care Act of 1973 was in existence, it facilitated disproportionate mental health care based on race, with blacks receiving the least care such as lowest disability grants or poorer quality services. In effect, the provision of the South African Mental Health Care Act of 1973 did not promote personal autonomy, dignity, equal access to resources for individuals with mental illness. Instead, it highlighted a paternalistic principle which allowed for the mentally ill patients to be alienated, stigmatised and disempowered. It became apparent that the South African Mental Health Care Act of 1973 needed to be reconsidered and changed (McCrea, 2010).

South Africa entered into a state of transition after the induction of the1994 democratic government. The nation was moving from a repressive regime into a new democratic era. According to the World Health Organisation (1994), the 1994 democratic government's administration was particularly focused on ridding the nation of all apartheid polices, and instituting new ones that met the needs of groups previously disadvantaged. The new South Africa adopted its Constitution (1996) with an accompanying Bill of Rights (1996) which came into force on February 7, 1997. It became even more evident that the South African Mental Health Care Act No. 18 of 1973 needed to be brought in line with the newly adopted principles of the South African Bill of Rights. (Bonthuys, 2001). South African Mental Health Care Act No. 18 of 1973 needed to reflect the issues of equality; the right to respect and protection of human dignity; and the freedom and security of persons. South Africa's new Mental Health Care Act No. 17 of 2002 was passed in 2002 and promulgated on December 15, 2004. McCrea (2010) reported that it came in force in line with other positive international initiatives in mental health legislation, such as the London Mental Health Care Act 2007, The Scotland Mental Health Care and Treatment Act 2003, and the Jamaica Mental Health Care Act 1998. The South African Mental Health Care Act of 2002 planned to shift the system from a previously custodial approach to one encouraging community care; ensuring provision for appropriate care, treatment and rehabilitation at all levels of the health service; and highlighting that individuals with mental disabilities should not be discriminated against, stigmatised or abused (Moosa & Jeenah, 2008).

Although the South African Mental Health Care Act of 2002 represented a major milestone in South African history, the World Health Organisation noted that it was not enough to bring about the major reforms greatly needed in South Africa's mental health system. Because the mental health care system is plagued with human resource constraints and infrastructure restraints, the implementation of the Act's requirements in community and district hospitals is problematic (Moosa et al., 2008). South Africa has a limited number of specialised psychiatric hospitals, and those available are ill equipped properly to abide by the requirements of the Mental Health Care Act of 2002 to protect patients' rights, for example the 72-hour provision. Additionally, many South African psychiatric hospitals do not separate the patients by age groups; as there is a significant lack of beds. Moreover, Burns (2002) highlighted as problematic areas that undermined the successful implementation of certain issues of the Mental Health Care Act such as a lack of proper training, inadequate skills; and a lack of proper understanding of the Act.

The National Mental Health Association (1987) stated that people with mental illness posed no more of a crime threat than did other members of the general population. Equally, Monahan and Steadman (1983) supported the notion that there was no direct association between mental illness and crime. Louw et al., (2005) also noted that most psychiatric patients did not commit either violent or criminal acts. Furthermore, they argued that the probability of the occurrence of violent behaviour was five times greater in the case of psychopathy than in the case of any other psychopathology. Monahan et al., (1983) argued that there were indirect and mediating factors to crime. In their study, they concluded that crime and mental disorder could be accounted for largely by the demographic and historical characteristics that the two groups share. In addition, these researchers suggested, that when the appropriate statistical controls were applied, that is taking into account factors such as age, gender, race, social class and previous institutionalisation, the relationship between crime and mental disorder, was weak. Monahan (1992) challenged this view when he argued that to control statistically for factors such as social class and previous

institutionalisation that were strongly related to mental disorder, proved problematic. Perry (1996) suggested that mental disorder caused people to decline in social class due to dysfunctionality, unemployment and often inappropriate aggressive behaviour. It appears that there is a strong view that challenges any relationship between mental illness and crime. Mental illness on its own does not lead to crime. It seems that the presence of substance abuse in patients diagnosed with mental illness increases the likelihood of violent or criminal behaviour. This is also true for people without the mental illness, which then makes this association not unique to people with mental illness. To associate crime with mental illness may unfairly contribute towards stigmatisation of mental illness. It appears that the focus should be on preventing, discovering and treating co-morbid factors such as substance misuse in an effort to reduce violent crime.

4.2 FORENSIC PSYCHIATRIC SETTINGS AND CONDITIONS IN SOUTH AFRICA

Mental illness is prevalent in South Africa. According to South African Depression and Anxiety Group (2008), 16.5% of South Africans suffer from common mental disorders like depression and anxiety. Herman, Stein, Seedat, Heeringa, Moolmal and Williams (2009) conducted a South African stress and health study looking at 12-month and lifetime prevalence of common mental disorders. The authors found that the lifetime prevalence of any disorder was 30.3 per cent with anxiety disorders being the most prevalent at 12 months and lifetime. More specifically in the prison population, Naidoo and Mkize (2012) conducted a study to determine the prevalence of serious mental disorders in the prison population in Durban, South Africa. They interviewed 193 prisoners and used mini-neuropsychiatric interview, a screening questionnaire and a demographic questionnaire. They found that 55.4 per cent of the prisoners presented with an Axis I disorder with substance and alcohol abuse being the most common disorders at 42.3 per cent. They found

that 23.3 per cent of the prisoners were diagnosed with current psychotic, bipolar, depressive and anxiety disorders. 41.6 per cent were diagnosed with antisocial personality disorder. They noted that the majority of prisoners diagnosed with Axis 1 in the study were neither diagnosed nor treated in the prison.

The country however, lacks many of the necessary resources and policies needed to execute effective mental health strategies. Historically, mental health care has been mainly institutionalisation. This shifted following the White Paper Act as the South African government made strides to deinstitutionalise mental health care and relegate it to the primary care setting. The lack of trained professionals as well as lack of communication between primary and district care remains a problem (Petersen et al., 2009). The role of African traditional medicine and culture remains a complex contribution to mental illness and mental health. The current section of this work aims to explore challenges facing the forensic settings, conditions and resources in the South African context. The forensic settings are faced with challenges such as inadequate infrastructure and staff, increased administration demands as a result of the Mental Health Care Act No.17 of 2002, and limited guidance from the Mental Health Review Board. Research has shown that one of the challenges within the forensic setting is that there is no formal training and professionals have to teach themselves (Kalinski, 2006).

In a health ministerial report, Minister Tshabalala-Msimang (2008) reported that the Department of Health in South Africa had designated facilities in terms of the Mental Health Care Act No. 17 of 2002. The minister reported that there were 15 health establishments designated to care for state patients and mental ill prisoners. In addition, it was stated that ten of these establishments had the capacity to conduct the 30 days court observations due to the security requirements. The report recognised the need for the implementation of the National Human Resources Strategy for South Africa (2008) and the training of the professionals required to render the mental health services. The report also acknowledged that as part of the hospital revitalisation programme, the revitalisation of psychiatric hospitals has also been prioritised. The report alluded to the fact that the security requirements that were raised by the South African Police Services (SAPS) regarding the facilities designated to conduct the 30 days court observations would be addressed. It was further suggested that in general individuals with mental illnesses struggle in silence and this was attributed partly to the victimisation of people with mental illnesses, stigma and discrimination; poor access to healthcare and increasing cost of medication. There had been an expected gradual and steady increase in the number of individuals affected by mental disorders entering the Criminal Justice System. For example, there were approximately 5 671 state patients on the national departmental database in 2008. According to the South African Mental Health Care Act No. 17 of 2002, a state patient refers to a defendant who has been deemed either not fit, and or not responsible for a crime, and referred to a psychiatric hospital for treatment and rehabilitation. However, where a defendant is deemed not fit but whose responsibility is judged to be intact, such a state patient must return to court once they are treated and regarded as fit to stand trial.

The ministerial report recommended that the system should ensure that people who commit minor offences did not congest the Criminal Justice System, as well as those forensic psychiatric services designated to conduct the 30 days court observations, in order to avoid unnecessary backlogs for observations. Limited staff resources have made this difficult. Furthermore, while the Mental Health Care Act No. 17 of 2002 requires that state patients awaiting admission to a designated health facility should be held in an appropriate detention centre that can provide the necessary treatment and care, long waiting lists make this difficult. While the Mental Health Care Act No. 17 of 2002 requires that transfer of state patients and mentally ill prisoners occurs within 72 hours of receipt of the necessary documentation, the major concern is that these documents often arrived many months after the date that the case was concluded. Minister Tshabalala-Msimang (2008) attributed the delay partly to limited capacity and poor co-ordination of services at local level. It is clear that effective rehabilitation programmes need to be established to prevent re-offending. In addition, there is a need to strengthen and prioritise programmes that deal with ways of preventing people from absconding from these facilities, thus putting families and communities at risk as well as increasing the likelihood of re-offending. Similarly, there is a need to strengthen and improve the communication and systems to manage the applications for the discharge of state patients who have successfully been rehabilitated.

CHAPTER 5

5.1 MENTALLY ILL OFFENDERS / CLINICAL OFFENDERS

Section 79(2) of the Criminal Procedure Act No.51 of 1977 provides for the referral of awaiting trial prisoners for 30 days psychiatric observation at a state psychiatric hospital. The primary enquiry is said to be directed at establishing the presence of mental illness or mental disability, which would include mental retardation and dementia, to establish fitness to stand trial and criminal responsibility. Mental illness in this instance means the positive diagnosis of a mental health related illness, in terms of accepted diagnostic criteria, made by a mental health care practitioner authorised to make such diagnosis. Section 77 of this Act states that the defendant must be tested for fitness or competence to stand trial. Section 78 of the Act directs that the assessment should consider whether the mental illness or disability interfered with the defendant's appreciation of wrongfulness or his/her ability to act in accordance with such an appreciation at the time of the offence. Criminal responsibility would depend on "mens rea" i.e. a guilty mind. In addition, pathological and non-pathological incapacity can abrogate mens rea. Pathological incapacity is derived from an inherent condition, such as mental illness, epileptic seizures or psychotic illness. Non-pathological incapacity is loosely conceptualised as a circumstance which is not due to an internal disorder (The Criminal Procedure Act No. 51 of 1977). According to the Swedish model, forensic patients are held responsible for their criminal offence, convicted, but not sentenced to jail but to a psychiatric institution for treatment. This model has been challenged. For example, Tannsjo (1997) has proposed that forensic patients should be sent for psychiatric treatment and later allowed to repent their crimes, as this renders easier their recovery and re-integration. An additional advantage of this model is that it also allows for treatment and punishment to be treated as separate entities.

According to the Mental Health Act No. 17 (2002) of South Africa, if a defendant is deemed not fit to stand trial and not responsible for the crime committed as a result of mental illness, the charges should be withdrawn and s/he would be referred to a state psychiatric hospital for indefinite hospitalisation under section 42 of the Mental Health Act (2002) whereupon s/he becomes known as a 'state patient'. Discharge would depend on a lengthy process whereby the Attorney-General has to be petitioned to allow the discharge to proceed. If the original charge was non-violent, then the Attorney-General would generally advise the hospital that the hospital board, which would sit quarterly, could affect discharge. If the original charge was deemed to have been violent, then reports have to be obtained from a social worker to investigate the patient's social circumstances; from the attending psychiatrist, the medical officer familiar with the patient and the superintendent of the hospital to determine if s/he would be adequately cared for and controlled by family. These reports would then be submitted via the Attorney-General for consideration by a judge in chambers. The Attorney-General retains the discretion not to pass the application onto the judge. On occasion, the documents have been returned to the hospital with a cursory note advising the forensic unit that the Attorney-General did not agree with their opinion that the patient was ready for discharge. A judge in chambers would generally issue an order for the conditional discharge. A breach of the discharge conditions could result in re-admission and rescinding of the discharge. In practice, hospitals generally readmit relapsed state patients as involuntary patients, and discharge to the state patient facility (The Mental Health Care Act No.17 of 2002).

According to James and Glaze (2006), the incarceration of people with mental illness in America is on the rise. They indicate that not only is this practice inappropriate, but that it is also

extremely cost ineffective, with \$15 billion being spent annually to house individuals with mental illness in jails and prisons. A national study from 2002 through to 2004 estimated that 56 per cent of state prisoners, 45 per cent of federal prisoners, and 64 per cent of jail inmates suffered from a mental illness. These researchers reported that this indicated an increase from the 1998 national study that found 16 per cent of state prisoners, 7 per cent of federal inmates, and 16 per cent of individuals in local jails had a mental illness. Furthermore, James et al., (2006) noted that, of these incarcerated people with mental illness, 70 per cent were serving time for nonviolent offences. In addition, they reported that the 2004 national study showed that only one in three state prisoners, one in four federal prisoners, and one in six jail inmates who had mental health problems had received treatment since admission. State prisoners who had mental health problems were twice as likely as state prisoners without mental health problems to have been injured in a fight since admission. The authors concluded that the nature of incarceration, from the booking to the jailing, re-traumatised and damaged persons with mental illness. James et al., (2006) argued that, without treatment options in the jails, offenders were often left to decompensate further. In addition, they recommended that treatment was necessary to reduce recidivism.

A recent South African study investigated the demographic profile of forensic psychiatric inpatients, the biographical data of 120 forensic psychiatric patients admitted to the Free State Psychiatric Complex in terms of Section 42 of the Mental Health Care Act, No. 17 of 2002, from 2004 to 2008 (Strydom, Pienaar, Dreyer, van der Merwe, Jansen van Rensburg, Calitz, van der Merwe & Joubert, 2011). These researchers found that the majority of the offenders were male (95.8 per cent), unmarried (83.8 per cent) and unemployed (81.5 per cent) and the median age was 32.5 years. Furthermore, they found that most of the offences committed against persons

were of a sexual nature (45.8 per cent). The main offence against property was vandalism (40.6 per cent). In addition, they reported that most of the patients in their study had a history of abusing substances such as alcohol (74 per cent), cannabis (66.7 per cent), tobacco (29.6 per cent) and glue (6.2 per cent). Strydom et al., (2011) reported that 55.5 per cent of the forensic inpatients in their study were diagnosed with schizophrenia, followed by mental retardation (10 per cent) and bipolar mood disorder (9.2 per cent). They reported that 58 per cent of the participants had received treatment for a mental illness prior to the crime, and 63 per cent were also known to have poor compliance and to have defaulted from treatment in the past. Surprisingly, Strydom et al., (2011) reported that 80 per cent of the participants reported having family support and a place to stay post discharge.

Strydom et al., (2011) identified factors that might influence the rehabilitation, management and training programmes for state patients, which included active symptoms of a major mental illness such as schizophrenia, current substance abuse, a history of substance abuse, the seriousness of the crime committed, medication compliance, a psychiatric history, and family or friends willing to accommodate the participant upon discharge. In addition, the presence of poor insight in state patients, for example those diagnosed with schizophrenia, was considered to have a potential negative impact on treatment compliance. Yates, Khunz, Khan and Volavka (2010) suggested that medical compliance was the single most enduring factor associated with clinical stability and the prevention of criminal behaviour. Similarly, Chaimowitz, Mamak and Padget (2008) asserted that insight and treatment adherence were independent contributors to the risk of violence. Strydom et al., (2011) concluded that these factors were important in determining the success of the rehabilitation programmes. Furthermore, there is evidence for high prevalence of current and

previous substance abuse among prisoners and as a result, substance abuse rehabilitation should also be considered as an essential element of forensic programmes. Moreover, lack of family support remained one of the main reasons why state patients were not discharged. A welldeveloped system to monitor all state patients in psychiatric hospitals and those discharged into the community would ensure that patients who relapsed were detected and treated before recommitting a criminal act. It is noted that such results were specific to the population, and therefore generalisation of findings to other contexts would need to be treated with caution. The study was further limited due to incomplete files or incorrectly filled information at times.

Most psychiatric patients are not violent, however research has shown a general consensus that serious mental illness, particularly schizophrenia and bipolar disorder is associated with increased risk of violent behaviour (Link & Stueve, 1995; Swanson, Borum per cent Swartz, et al., 1999; Appelbaum, Robbins & Monahan, 2000; Steadman, Mulvy & Monahan, 1998). The prevalence of violent behavior in bipolar disorder is at least as high as in schizophrenia. Clinicians have been aware of the problems with violent behavior in bipolar disorder for a long time. However, research efforts in this area have lagged behind analogous work in schizophrenia (Latalova 2009).

Based on a meta-analyses of studies published between 1966-2012 on violent behaviour associated with schizophrenia and bipolar disorder, Volavka (2012) found that there were statistically significant increases of risk of violence in schizophrenia and in bipolar disorder in comparison with the general population. The evidence suggested that the risk of violence is greater in bipolar disorder than in schizophrenia. Most of the violence in bipolar disorder occurred during the manic phase and the risk of violence in schizophrenia and bipolar disorder was increased by comorbid substance use disorder. Volavka (2012) concluded that treatment approaches should not focus only on violent behavior, but also on contributing comorbidities such as substance abuse and personality disorders.

5.2 PREDISPOSING FACTORS TO MENTAL ILLNESS

5.2.1 SOCIO- ECONOMIC FACTORS

Factors that are likely to predispose one to mental illness would include socio-economic factors, family environmental factors, demographic factors and the interaction between the environmental factors and genetic factors.

Amoran, Lawoyin and Oni (2005) reported from their study conducted in Oyo state, Nigeria that the unemployed had the highest prevalence for psychiatric morbidity when compared with the employed. In addition, they found that respondents who had higher levels of formal education had a higher morbidity rate than those with low levels of formal education. Amoran et al., (2005) reported that the respondents who perceived their living conditions to be above average were more mentally stable compared with those who did not. In addition, those with chronic mental illness had a higher prevalence of psychiatric morbidity. Furthermore, those with a history of good social relationships in their study were more mentally stable (Amoran et al., 2005).

Sirotich (2008) argued that the connection between socio-economic status and criminal and/or violent behaviour among individuals with mental illness appeared complex. He argued that within the criminological literature, socio-economic status was correlated with the risk of criminal recidivism. Gendreau, Little and Goggin (1996) conducted a meta-analysis study of the predictors

of recidivism among the general offender population in Canada and found that socio-economic status was a weak predictor. However, they noted that, within the population of mentally ill persons, the association was less clear. Bonta et al., (1998) found no relationship between socioeconomic status and general or violent recidivism. However, the study was largely criticised because they undertook a meta-analysis of predictors of criminal recidivism and did not indicate how socio-economic status was defined, presumably because its operationalisation varied among the studies they included in their analysis. In contrast, however, Swanson, Estroff, Swartz and Borum (1997) combined information about respondents' occupational status, educational level and household income to assess for socio-economic status and found a relationship between violence and socio-economic status. Furthermore, Stueve and Link (1997) used number of years of education to assess for socio-economic status and found that weapons used among persons with psychotic or bipolar disorders were related to socio-economic status. Sirotich (2008) argued that this variation might be a product of the potential differential role socio-economic status played in different populations such as the mentally disordered offenders and community samples of mentally ill persons. Other possible explanations may include opinions that any potential relationship between socio-economic status and criminality or violence was mediated by other factors. For example, Silver, Mulvey and Monahan (1999) found that socio-economic status was less predictive of violence compared to neighbourhood poverty. Causal attribution between socioeconomic status and psychiatric illness is further complicated by the fact that psychiatrically patients are less likely to complete their education and less likely to retain stable employment. It would appear that further research would be required using various indices of socio-economic status to ascertain any relationship it might have with criminality and violence among mentally ill persons.

5.2.2 FAMILY ENVIRONMENTAL FACTORS

Certain stressors could trigger an illness in a person who may be susceptible to mental illness. These stressors could include death or divorce, a dysfunctional family life, feelings of inadequacy, low self-esteem, anxiety, anger, or loneliness, changing jobs or schools. Social or cultural expectations for example, a society that tends to associate beauty with thinness could be a factor in the development of eating disorders. Amoran et al., (2005) found that single individuals (never married, separated and divorced) had a higher morbidity rate when compared with married individuals. Furthermore, they reported that respondents living within the extended family structure had a higher prevalence of mental ill-health when compared with those living within nuclear family structure. In addition, small sized families were significantly mentally healthier than large size families.

5.2.3 HERITABILITY

The American Psychiatric Association (2000) has indicated that many mental illnesses run in families, suggesting that people who have a family member with a mental illness were more likely to develop the illness. Susceptibility would be passed on in families through genes. Research has shown that many mental illnesses were linked to genetic abnormalities. However this relationship may be complex. In some instances, a person could inherit a susceptibility to a mental illness and would not necessarily develop the illness. Mental illness itself could occur as the result of an interaction between inherited factors such as genetic susceptibility or temperament and other factors such as stress, abuse, or trauma, which could influence or trigger mental illness in a person who has an inherited susceptibility to it (American Psychiatric Association, 2000; Sadock, Sadock, Ruiz & Kaplan, 2009).

Faraone, Tsuang and Tsuang (1999) conducted a study of the genetic causes of mental disorders that involved both the laboratory analysis of the human genome and the statistical analysis of the frequency of the occurrence of a particular disorder among individuals who shared related genes such as family members and particularly twins. Faraone et al., (1999) investigated the family risk by comparing the observed frequency of occurrence of a mental illness in close relatives of the patient with its frequency in the general population. The researchers found that first-degree relatives (parents, siblings, and children) shared 50 per cent of their genetic material with the patient, and that higher rates of the illness in these relatives than expected, indicated a possible genetic influence. Furthermore, the authors reported that in twin studies the frequency of occurrence of the illness was higher in both members of pairs of identical (monozygous) twins when compared with its frequency in both members of a pair of fraternal (dizygous) twins. They reported that a higher concordance for disease was found among the identical than among the fraternal twins and that this would further suggest a genetic influence. Faraone et al., (1999) recommended further investigation into the relative importance of genetic and environmental factors accrued from comparing identical twins reared together with those reared apart. In addition, the researchers concluded that adoption studies comparing adopted children whose biological parents had the illness with those whose parents did not, could also be useful in separating biological from environmental influences.

Jaffee and Price (2007) reviewed psychology and psychiatry literatures and discussed the challenges involved in identifying gene environment correlations (rGEs) in studies of psychiatric disorders. In addition, these authors discussed the implications of rGEs in understanding genetic and environmental risk processes in psychopathology. It is reported that rGEs reflect genetic

differences in exposure to particular environments. rGEs can arise by both causal and non-causal mechanisms, whereby causal mechanisms indicate genetic control over environmental exposure and non-causal mechanisms include evolutionary processes and behavioural contamination of the environmental measure (Jaffee et al., 2007). Three causal mechanisms that give rise to rGEs are described. Firstly, there are passive rGEs that refer to the association between the genotype a child inherits from the parents and the environment in which the child is raised. For example, parents who have histories of antisocial behaviour, which is moderately inheritable, are at increased risk of abusing their children. As a result, maltreatment may be a marker for genetic risk that parents transmit to their children rather than a causal risk factor for conduct problems in children. Secondly, reactive rGE refers to the association between an individual's genetically influenced behaviour and the reaction of those in the individual's environment to that behaviour. For example, marital conflict and depression may reflect tensions that arise when engaging with a depressed spouse rather than being a causal effect of marital conflict on risk for depression. Thirdly, active rGE, which refers to the association between the individual's genetically influenced traits or behaviours and the environmental niches selected by the individual. For example, individuals who are extroverted may seek out very different social environments than those who are shy and withdrawn (Jaffee et al., 2007).

Rutter, Moffitt and Caspi (2006) suggested that twin and adoption studies provided evidence for rGEs through demonstrating that putative environmental measures were heritable. Rutter and Silberg (2002) reported similar findings. For example, studies of adult twins have shown that desirable and undesirable life events are moderately heritable, as are specific life events and life circumstances, including divorce (Bolinskey, Neale, Jacobson, Prescott & Kendler, 2004;

Saudino, Pedersen, Litchtenstein, McClearn & Plomin, 1997; Jockin & McGue, 1996; McGue & Lykken, 1992). There is also a growing body of literature on the genetic factors influencing behaviours that constitute a risk to health, such as the consumption of alcohol, tobacco as well as illegal drugs, and risk-taking behaviours (Ball & Collier, 2002; Dick & Foroud, 2003; Li, 2003). Similar to parental discipline, these health-related behaviours are reported to be genetically influenced as well as thought to have environmentally mediated effects on disease (Jeffee, et al., 2006). Researchers have attempted to determine why genes and environments are correlated, most evidence has pointed to the intervening effects of personality and behavioural characteristics. For example, parental negativity and harsh physical discipline are moderately heritable.

5.2.4 THE NATURE VS NURTURE FACTORS TO MENTAL ILLNESS

Plomin and Bergeman (1991) reported that twin and adoptee studies showed that, even though risks were due to an environmental feature, the risks might nevertheless be genetically mediated in part because, if the environmental feature concerned anything that was influenced by parental behaviour such as family conflict, divorce or parent–child interaction, the individual differences in such behaviour were likely to be genetically influenced to some extent. Rutter (2004) argued that study designs were needed that could differentiate between genetic and environmental mediation. Furthermore, he suggested that twin and adoptee strategies of various kinds provided the possibility of this link and good evidence of the reality and importance of environmentally mediated risks for psychological and psychopathological outcomes. However, Rutter (2004) reported that these were by no means the only relevant designs. Rutter (2004) indicated that different natural experiments have been used in psychosocial research, with a specific focus on

the radical change of environment and discriminating between variables that ordinarily go together, the effects of which could be studied by measuring within-individual change investigated through the use of longitudinal data. By these means, environmentally mediated risks have been demonstrated in relation to various aspects of the family rearing environment, and also for peer group, school and community influences.

Rutter (2004) recommended that there were four features of present research findings that needed to be highlighted. Firstly, he argued that, despite some claims to the contrary, environmental influences have been found to operate within the normal range, and not just in relation to extreme environments. Secondly, environmental effects have been shown not only in relation to influences in infancy, but also with regards to influences in middle childhood. This view has also been supported by similar findings in adult life (Duyme, Dumaret & Tomkiewicz, 1999; Laub, Nagin & Sampson, 1998). Thirdly, Rutter (2004) argued that the environmentally mediated risks included prenatal influences such as maternal drug and alcohol use and severe maternal stress. In addition, postnatal physical influences such as brain injury and adolescents' heavy early use of cannabis also count as mediating risk factors. Furthermore, he argued that the span of risk influences was substantially wider than has sometimes been assumed. Fourthly, with all the known environmental hazards including both physical and psychosocial factors, Rutter (2004) reported that there was a huge individual variation in response. For example, Rutter (2004) noted that some individuals succumbed; some appeared remarkably resilient; and a few even seemed strengthened as a result of having coped successfully with stress and adversity. In addition, while it might be supposed that the individual differences merely reflect variations in the severity and number of risks involved, but that experimental studies in both animals and humans have shown that this did not account for the phenomenon of resilience. Nevertheless, Rutter (2004) highlighted that a key influence was the genetically influenced vulnerability to environmental risk or protection against the environmental risk.

Rutter (2004) pointed out three challenges. Firstly, there is a need for a better understanding of the kinds of environmental influences that have major risk effects. Furthermore, the evidence suggests that these include restrictions on the possibility of developing intense selective social relationships, such as with institutional rearing, severe disruptions in the security of such relationships such as in involving with neglect, rejection and scapegoating. In addition, life events that carry a long-term threat to secure relationships such as humiliating experiences, personal rebuffs or rejections and group influences of a maladaptive kind such as antisocial peer groups or malfunctioning schools are also implicated. Furthermore, the overall quality of adult–child interaction and communication has been shown to matter. It is also evident that both prenatal and postnatal influences that affect neuroendocrine and neurotransmitter functions are important.

The second challenge is to identify the origins of environmental risk factors, whether they lie in gene–environment correlations. In this way, the genetic factors have their impact on those behaviours that shape or select environments and, thereby, influence the likelihood of experiencing stress or adversity, societal elements such as racial discrimination, poverty or housing policy or personal experiences (Rutter, 2004).

The third challenge is to determine the changes in the organism that provide the basis for the persistence of environmental effects on psychological functioning or psychopathology. In many respects, this constituted the environmental equivalent of sequencing the human genome (Rutter, 2004). Furthermore, the author reported that environments also affect the programming of brain development. Experiences may affect patterns of interpersonal interaction that become influential through their role in the shaping of later environments. In addition, the experiences have to undergo cognitive and affective processing, so that what happens to individuals influences their mental concepts and models of themselves and of their environments. The relative importance of these, and other, possibilities with respect to different outcomes has yet to be established. The questions required bringing together of genetic, social and developmental perspectives in an integrated fashion. It is proposed that clinicians should consider the important interplay that shaped environmental effects (Rutter, 2004).

5.2.5 DEMOGRAPHIC FACTORS

Amoran et al., (2005) conducted a community-based study examining risk factors associated with mental illness in Nigeria, Oyo State. Psychiatric morbidity was found to be more prevalent in the rural population (28.4 per cent) compared with the urban population (18.4 per cent). The adolescents in their study (15 to 19 years) had the highest prevalence of psychiatric morbidity. The indigenous population was more mentally stable when compared with the migrant tribes. The researchers argued that this showed that migrants in Nigeria may be predisposed to psychological risks when compared with the indigenous population. Furthermore, Amoran et al., (2005) reported that this finding was contrary to research done among Canadian Chinese migrants which showed that they did not suffer mentally compared with the general Chinese population. Further

research would need to be done to explore this. The authors also found that females had a higher prevalence of psychiatric morbidity.

Bonta et al., (1998) reported that there were several demographic variables considered within the literature, which were of interest in understanding any potential relationship between mental disorder and violent or criminal behaviour. They noted that the most significant among these was biological sex. Furthermore, the researchers found that in the general population, males were much more likely than females to engage in violent and criminal behaviour. Gendreau et al., (1996) revealed similar findings. In addition, Bonta, et al., (1998) observed that among psychiatric populations, the sex effect was less clear. In community-based epidemiological studies of self-reported violence and in studies of criminality among persons with mental disorder, male sex was a significant predictor of violent and criminal behaviour (Bonta et al., 1998; Hwang and Segal, 1996; Lovell, Gagliardi & Peterson 2002; Solomon & Draine 1999; Stueve et al., 1998; Swanson et al., 1990; Wessely, Castle, Douglas & Taylor 1994). However, these studies failed to provide data on schizophrenia as a separate diagnosis. In contrast, other studies such as retrospective and prospective studies of violence researching samples of psychiatric patients who had recently been admitted or recently discharged from hospital, found that males were no more likely to be violent than females (Hiday, Swartz, Swanson, Borum & Wagner 1998); Robbins, Monahan & Silver, 2003). Some studies have explored the relative effect of mental disorder on the potential of each sex for criminality and found that mental disorder had more of an effect on the criminal potential of females than of males. For example, Wessely et al., (1994) conducted a cohort study in London with patients using data obtained from psychiatric case and criminal record registries and found that the crime rate among males with schizophrenia was almost the same as that of males with other mental disorders, or that of the general male population. Conversely, Lindqvist and Allebeck (1990) found that the crime rates in Stockholm among females with schizophrenia were two to four times higher than those of females with other mental disorders or no mental disorder. Hodgins (1992) found that males' risk of criminality increased twofold and that of females increased fivefold. In contrast Fazel and Grann (2006) found the risk of criminal violence among males with schizophrenia or other psychotic disorders increased fourfold and that of females increased sixfold. Similarly, Eronen, Hakola and Tiihonen (1996) conducted a study among 693 convicted homicide offenders in Finland. Here the risk of homicide based on diagnosis was found to be substantially greater among females in most diagnostic categories than among males. Sex differences have also been found in the severity and consequences of violence perpetrated by persons with mental disorder, with males being more likely to commit serious injury and to be arrested (Hiday et al., 2003).

There are mixed findings relating to the role of biological sex as a determinant of crime and violence among persons with mental disorder. Busfield (1996) argued that it was possible that police were more likely to lay criminal charges against males than females for delinquent behaviour and that deviant behaviour was apt to be regarded as criminal when perpetrated by males and as psychopathological when perpetrated by females. As a result, the author reported that men might be more likely to be arrested because the violence they committed was more likely to lead to serious injury. This would explain the elevated arrest rates among males with mental disorder. Sirotich (2008) argued that it was possible that gender was a powerful risk factor among offender populations and community samples but a less strong predictor among hospitalised patient samples that included subjects who were typically acutely ill. This could

suggest that symptom risk factors might mask or overshadow sex effects. Further research would be necessary to untangle the potential interactive effect of gender on the relationship between mental disorder and violent and criminal behaviour. Similarly, Friedman, Shelton and Elhaj (2005) observed gender differences across criminal history and type of legal charge. They found that men consistently had significantly more arrests during their lifetimes and were noteworthy for far more arrests for violent and nonviolent offences, felonies, and misdemeanours than did women.

Gendreau et al., (1996) argued that age was another risk factor for violence as well as criminal behaviour in the general population. Moffitt (1993) reported that when official rates of crime were plotted against age, the rates for both the prevalence and incidence of offending appeared highest during adolescence and young adulthood but that a significant drop thereafter was noted. Steadman, Silver, Monahan, Appelbaum, Robbins and Mulvey (2000) argued that individuals with mental disorder in their late teens and early twenties are at the highest risk for criminal and violent behaviour. Hodgins (1992) conducted a retrospective Sweedish birth cohort study over a 30 year period and found that young age was a predictor of criminal behaviour and that criminality among males with no mental disorder decreased with age. However, she also found that a significant number of males with major mental illness began their criminal careers across all age groups. Otto (2000) argued that the age effect might be eclipsed by symptom risk factors.

Gendreau et al., (1996) found that race was another demographic variable associated with arrests for violent crime in the criminological literature. Silver (2000) indicated that the relationship between race and violence among psychiatric patients was eliminated when the variable of neighbourhood disadvantage was considered. Similarly, Swartz, Swanson, Hiday, Borum, Wagner and Burns (1998) found that African-Americans were at greater risk for perpetrating violence but only when they themselves had previously been the victims of violence. Sirotich (2008) argued that victimisation might have been a common experience among persons living in disadvantaged neighbourhoods. Otto (2000) suggested that more studies were required to ascertain whether the connection between race and violence by persons with mental disorder is contextually driven and possibly a product of socio-economic factors.

5.2.6 CLINICAL FACTORS AND PSYCHOLOGICAL THEORY

The clinical factors discussed place an individual at risk of being diagnosed with a mental illness. In addition, it also looks at the psychological theory and understanding of mental illness. It explores the intrapsychic and internal world and how this plays out in the development of a mental illness. The contribution of childhood experiences, formation of personality, traumatic experiences and cultural factors to the likelihood that one develops a mental illness is explored.

Psychological factors that may contribute to mental illness would include severe psychological trauma suffered as a child, such as emotional, physical, or sexual abuse. Furthermore, it could include difficulties such as an important early loss, such as the loss of a parent, parental neglect and poor ability to relate to others. Gelder et al., (1983) proposed that maladaptive coping mechanisms such as those in personality disorders could lead to difficulties coping with stress and could result in a predisposition to mental illness. Stressful life events have been shown to contribute to the development and maintenance of schizophrenia, affective disorder and other

psychiatric disorders. Substance abuse or dependency has also been suggested as one of the predisposing factors to mental illness. Cultural factors may influence the presentation and the course of mental disorder. Migration between societies may be a stressful experience and has been suggested as a possible cause of mental disorder (Gelder et al., 1983).

Psychodynamic theories classically viewed neurotic symptoms as arising from intrapsychic conflict, which would be the existence of conflicting motives, drives, impulses, and feelings held within various components of the mind. Central to psychoanalytic theory would be the postulated existence of the unconscious, which would be that part of the mind whose processes and functions were inaccessible to the individual's conscious awareness or scrutiny. One of the functions of the unconscious was thought to be that of a repository for traumatic memories, feelings, ideas, wishes, and drives that were threatening, abhorrent, anxiety-provoking, or socially or ethically unacceptable to the individual. These mental contents might at some time be pushed out of conscious awareness but also remain actively held in the unconscious and this would serve as a defence mechanism for protecting the individual from the anxiety or other psychic pain associated with the repressed mental contents. The repressed mental contents held in the unconscious retained much of the psychic energy or power that was originally attached to them. However, they could continue to influence significantly the mental life of the individual, even though a person was no longer aware of them (Gabbard, 2005).

Gabbard (2005) reported that the natural tendency for repressed drives or feelings was to reach conscious awareness so that the individual could seek the gratification, fulfilment, or resolution of them. But this threatened release of forbidden impulses or memories could provoke anxiety

and as a result be perceived as threatening to the psyche, and a variety of defence mechanisms might then come into play to provide relief from the state of psychic conflict. Through reaction formation, projection, regression, sublimation, rationalisation, and other defence mechanisms, some component of the unwelcome mental contents could emerge into consciousness in a disguised or attenuated form, thus providing partial relief to the individual. Later, perhaps in adult life, some event or situation in the person's life would trigger the abnormal discharge of the pent-up emotional energy in the form of neurotic symptoms in a manner mediated by defence mechanisms. Such symptoms could form the basis of neurotic disorders such as conversion and somatoform disorders, anxiety disorders, obsessional disorders, and some depressive disorders. Since the symptoms represent a compromise within the mind between letting the repressed mental contents out and continuing to deny all conscious knowledge of them, the particular character and aspects of an individual's symptoms and neurotic concerns bear an inner meaning that symbolically represents the underlying intrapsychic conflict. Psychoanalysis and other dynamic therapies would help a person achieve a controlled and therapeutic recovery that would be based on a conscious awareness of repressed mental conflicts along with an understanding of their influence on past history and present difficulties. These steps were associated with the relief of symptoms and improved mental functioning (Gabbard, 2005).

Psychodynamic theory viewed childhood as being the primary breeding ground of neurotic conflicts due to the fact that children were relatively helpless and were dependent on their parents for love, care, security, and support and because their psychosexual, aggressive, and other impulses were not yet integrated into a stable personality framework. The theory posited that children lacked the resources to cope with emotional traumas, deprivations, and frustrations; and

if these develop into unresolved intrapsychic conflicts that the young person held in abeyance through repression, there was an increased likelihood that insecurity, unease, or guilt would subtly influence the developing personality, thereby affecting the person's interests, attitudes, and ability to cope with later stresses (Gabbard, 2005).

Psychoanalytic theory's emphasis on the unconscious mind and its influence on human behaviour resulted in a proliferation of other, related theories of causation incorporating, but not limited to, basic psychoanalytic precepts. Most subsequent psychotherapies have stressed in their theories of causation aspects of earlier, maladaptive psychological development that had been missed or underemphasised by orthodox psychoanalysis, or they have incorporated insights taken from learning theory. Carl Jung, for instance, concentrated on the individual's need for spiritual development and concluded that neurotic symptoms could arise from a lack of self-fulfilment in this regard. Alfred Adler emphasised the importance of feelings of inferiority and the unsatisfactory attempts to compensate for it as important causes of neurosis. Neo-Freudian authorities such as Harry Stack Sullivan, Karen Horney and Erich Fromm modified Freudian theory by emphasising social relationships and cultural and environmental factors as being important in the formation of mental disorders.

Contemporary psychodynamic theories have moved away from the idea of explaining and treating neurosis on the basis of a defect in a single psychological system and have instead adopted a more complex notion of multiple causes, including emotional, psychosexual, social, cultural, and existential ones. A notable trend was the incorporation of approaches derived from theories of learning. Such psychotherapies emphasised the acquired, faulty mental processes and

maladaptive behavioural responses that act to sustain neurotic symptoms, thereby directing interest toward the patient's extant circumstances and learned responses to those conditions as a causative factor in mental illness. These approaches marked a convergence of psychoanalytic theory and behavioural theory, especially with regard to each school's view of disease causation (Gabbard, 2005).

In view of the literature reviewed in relation to clinical or psychological factors, social, political, economic and heritability factors, it would appear that there is a possible link between mental illness and crime. There appeared to be common factors that predispose individuals both to crime and mental illness. These would include the evidence of biological and environmental factors as contributing factors to one's likelihood of engaging in crime or the development of mental illness. Both mental illness and criminal behaviour are associated with low social class, low intelligence, poor functionality and unemployment which predispose some individuals to crime. It became clear that mental illness on its own did not explain criminal behaviour in the majority of cases. There is also an interesting discussion about the role of situational variables versus personality factors as well as how obedience to any form of behaviour could be influenced by both external and internal factors.

CHAPTER 6

6.1 VIOLENCE AND TYPES OF VIOLENCE

This section aims to discuss the definition of violence, the different types of violence and the psychological underpinnings of violence. Violence is introduced as an attack on attachment or any form of contact. This section also touches on how some form of detachment or even dissociation may occur during the violence. This may serve as a defence or coping mechanism for the perpetrator.

Renn (2009) argued that, while many have violent and aggressive thoughts, feelings and fantasies, these seldom translate into acts of violence. An interpersonal violent act consists of an actual attack upon the body of another with the explicit intention of causing physical harm and injury. Violence falls into two broad types of behaviour (Renn, 2009). Firstly, there is predatory or psychopathic violence, which would be planned and emotionless, and in which the perpetrator seeks out a victim with whom s/he has no attachment relationship. Secondly, defensive or affective violence, which would arise in reaction to a perceived threat to one's personal safety or sense of self, and which would be preceded by heightened levels of emotional arousal. Furthermore, Renn (2009) asserted that both types of violence involved the expression of unbearable states of mind that could not be reflected upon or symbolised. He viewed both categories of violent people as sharing a common history of insecure attachment and unresolved trauma, with these factors being more extreme in the histories of predatory people than in the far more numerous cases involving affective violence. He suggested that the majority of violent assaults between adults occurred within an existing attachment relationship and fall within the defensive or affective category.

Renn (2009) argued that in the case of stranger violence, threat, menace and the fear of annihilation may be projected outwards and become embodied in the person of the stranger. The violent act may often have the aim of attenuating an actual or perceived threat to the person committing it. He reported that it included dissociated attachment dynamics that were suddenly disinhibited and acted out in the violent attack on the stranger.

Renn (2009) further stated that, when development was marked by substantial trauma, abuse and dissociation, identifying with the aggressor and victimising others may become a maladaptive regulatory act. He argued that the discharged violence transformed the sense of helplessness and powerlessness associated with the original trauma, providing a temporary sense of triumph and revenge. Renn (2009) reported that most perpetrators of serious violence operate between a repetition compulsion and dissociated enactment of their personal trauma. In the re-enactment, the person who was once persecuted becomes the persecutor.

Renn (2009) referred to political violence and argued for the importance of acknowledging that issues motivating the individual and collective acts of political violence were complex and multifactorial. He reported that such issues included social injustice, coercion, consensual validation, radicalisation, dehumanisation of the other, abdication of individual responsibility, becoming the voluntary agent of others within a malignant authority system, and fear of retribution. Sociocultural, economic and historical contexts became important when understanding political violence, for example the ultra-racist policies of apartheid South Africa. Renn (2009) argued that, while these various factors played an important contributory role, the developmental experiences of the politically violent person may also often be a significant factor in that the victims of childhood violence, abuse and persecution may channel their hatred, rage and humiliation towards political ends. Thus, the researcher suggested that the political may often reflect the very personal. The author maintained that when an individual in the grip of grandiosity and megalomania grasped political power and played out his/her dissociated personal trauma on the world stage, the social and political consequences could be horrendously destructive of human life.

Dutton (1988) researched battering along with other domestic violence researchers (Babcock, Jacobson, Gottman & Yerington, 2000; Hastings & Hamberger, 1988; Holtzworth-Munroe, Smart & Hutchinson, 1997; Saunders, 1987). They found that there was not one type of batterer. The researchers therefore concluded that there was no single type of treatment intervention that would be enough to satisfy all batterers. Dutton (1994) began to incorporate attachment measures into the interview protocol, and utilised a self-report measure, the Relationship Scales Questionnaire (Bartholomew & Shaver, 1998). Dutton (1994) found that there were different patterns of attachment that began to emerge. Furthermore, the author discovered that the vast majority of perpetrators were assessed as having insecure attachment. Approximately 40 per cent had dismissing attachment (as compared with 25 per cent in the non-clinical population), 30 per cent preoccupied attachment (as compared with 10 per cent in the non-clinical population), and 30 per cent disorganised attachment (as compared with 5 per cent in the non-clinical population). These findings were corroborated by the research conducted by Holtzworth-Monroe et al., (1997). These authors utilised both the Relationship Scales Questionnaire and Adult Attachment Interview in their research among perpetrators and found similar results with both measures. These studies and results suggested that domestic violence perpetrators had higher rates of attachment insecurity than those of the general population and that incorporating attachment theory into understanding the psychology of perpetrators might

ultimately assist in devising interventions that would facilitate the process of "earned security." Weinfield, Sroufe and Egeland (2000) defined "earned security" as describing individuals who experience malevolent parenting and therefore would be expected to present with insecure attachment, but have risen above those experiences through alternate positive attachment experiences such as spousal relationships or psychotherapy and are assessed as securely attached as a result. Their data also showed that batterers represented a heterogeneous population and that different interventions might be necessary for different patients depending on how they regulated attachment distress. For example, batterers with a dismissing attachment status down-regulated affect because their attachment figure was non-responsive to their emotional needs, so interventions would need to focus on helping these individuals identify disavowed affect and learn constructive ways of expressing feelings and needs in a relationship context. Conversely, individuals with preoccupied attachment style would have learned to upregulate attachment distress in order to get their attachment figure to respond to their needs. These individuals would need to learn how to self-soothe when activated and not depend solely on their attachment figures to soothe them via proximity maintenance (Holtzworth-Monroe et al., 1997).

Dutton (1988) reported that disorganised batterers have learned that interpersonal relationships are dangerous. The disorganised batterers have learned to regulate attachment distress through approach and avoidance. When these forces are strongest, it could result in a breakdown in cognition and affect resulting in uncontrollable rage and dissociation. These individuals would need to address previous traumas and losses in order to break the disorganised processes that tended to contribute to aggression and violence. Saunders (1996) found that batterers who had experienced childhood abuse benefited more from psychodynamic treatment models that emphasised the resolution of childhood abuse dynamics. The goal of domestic violence treatment for each of these attachment categories would be similar, and that would be the cessation of violence. How that goal would be achieved might differ depending on how each person typically regulated attachment distress (Saunders, 1996).

Reid (2004) noted that lethal violence was unusual among persons with severe and chronic mental illness but that when it happened, the victims were likely to be the patient's immediate family members. He argued that family members became victims of violence related to psychosis, morbid depression or paranoia with intractable narcissistic loss. Reid and Thorne (2007) further investigated the types of violence associated with personality disorders. They maintained that although DSM-IV (2000) clusters were sometimes helpful, understanding similarities among kinds of violence was more useful and relevant to situations that commonly presented to clinicians rather than separating behaviours and psychological issues by diagnosis. These authors investigated eight types of violence associated with personality disorders. The first was purposeful-instrumental violence, which was reported as being prevalent in disorders that eliminate a sense of empathy or diminish the perpetrator's thoughtful consideration of others and that it, was often characterised by violence for personal gain. Furthermore, it included acts in which violence was a means to a conscious, gainful end as well as violence designed to manipulate others into some wanted behaviour. Examples of these would be robbery, fleeing arrest, manipulative behaviour seen in those with antisocial, narcissistic or borderline personality disorders. The second type is purposeful, non-instrumental violence, which involves violence for the sake of excitement or stimulation. In this instance, such violence might add to the pleasure of a stimulating or antisocial activity but actually injuring others is not integral to the purpose of the activity. Reid et al., (2007) argued that bystanders could refer to this violent behaviour as senseless or random but it would have the emotional purpose of stimulation. The target might be random but the behaviour and putting others in danger would be intentional. This violence was more prevalent among those with antisocial personality traits (Reid et al., 2007).

Thirdly, there is purposeful-targeted-defensive violence, which Reid et al., (2007) defined as a maladaptive attempt to stop some intolerable affect, often associated with humiliation or abandonment. They suggested that violent reaction to such a condition, which threatens the integrity of the person's ego, might be rapid or carefully planned. The level of violence could appear baffling until its internal meaning was recognised and understood. The examples of these would include extreme behaviours of paranoid stalkers, who might create near-delusional scenarios of competition or abandonment. Paranoid defenders believed that they should defend themselves from imagined or exaggerated threats. Reid et al., (2007) reported that the presence of dependant, avoidant and schizoid traits increased the risks of such violence. However, these authors related that when paranoid thinking became more than mildly delusional and a person's functioning was significantly compromised, then an Axis 1 diagnosis should be considered. Paranoia was identified among the most dangerous personality traits and associated with both domestic and general violence. The authors reported that people with paranoid personality disorder routinely imagined and rehearsed, both mentally and literally, violent solutions to paranoia-created scenarios. It is also important to note that delusional people with an Axis 1 diagnosis are more likely to present and be seen by mental health professionals than those with paranoid personality disorder only. While people who appear passive, dependent or avoidant would not initiate violence, they might be dangerous when trapped and unable to escape emotional pressure. Furthermore, passive, dependant or avoidant people would usually adjust their environments to decrease their anxiety and concomitantly lower the risk of violence. Reid et al., (2007) further reported that a threatened breach of narcissistic character defences carried a risk of violence as well.

The fourth type is targeted-impulsive violence, which Reid et al., (2007) defined as striking out at a perceived or psychological threat without planning and that others would not consider worthy of the same quality or quantity of violence. The victim would often be targeted in a desperate effort to eliminate the source of an acute psychic threat. This would include enraged reactions to acutely perceived humiliation or abandonment. This would be when there was a reduced ability to rely upon internal defences when trapped in emotionally intractable situations from which one could not escape. This inability to escape intolerable and anxiety-producing situation would increase the likelihood of a violent reaction that would be intended to escape the threat or offer some form of relief. This occurs when an external event threatens poorly defended fears of inadequacy or abandonment. Examples of these would include paranoid, narcissistic or borderline personality disorder as a result of a person's extreme sensitivity to loss or perceived injury. Reid et al., (2007) reported that people with dependent, obsessive compulsive and avoidant personality traits would be at less risk but might decompensate into violent behaviour under remarkable circumstances as well as reverting to primitive, violent actions to defend their egos. In this way, the violent behaviour would serve the function of destroying the individual's perceived pain (Reid et al., 2007). Coid (2002) further supported this in his study of a prison population.

The fifth type is non-targeted impulsive violence incidental to emotional escape, where Reid et al., (2007) argued that it was non-targeted, but that the person who triggers the intractable emotional state might bear the brunt of violence if s/he were perceived to be in the way. The purpose of the behaviour would be rapid escape from a situation that had created an acute,

intolerable internal situation for which the personality disordered person had inadequate emotional defences and behavioural alternatives. The person would seek to escape from the source of pain. These people would often seem outwardly stable but actually would have inner worlds that would be kept artificially free of emotional controversy that might threaten their emotional lives. The person might exhibit stilted, even ritualistic behaviours in order to control the impact of the external environment upon those inner lives or might simply choose isolation and other defences as a means of avoiding stressors. These people would present with an extraordinary need to defend desperately against discovering in themselves some frighteningly destructive core emotion or self-reviled dependency (Reid et al., 2007).

The sixth type is random-purposeful violence, where Reid et al., (2007) asserted that pleasurable stimulation would be derived from violence itself to instil the feeling of power. This may often involve other violent and sadistic behaviour. There often would be no direct relationship between the perpetrator and victim. In this situation, the victim would be regarded as a target of convenience. The act would be carefully orchestrated including a plan to escape. The authors argued that there would be a violent purpose, which would have an underlying wish to exert power over others and over the passive portion of the perpetrator's own psyche. A seventh type of violence described is violence related to perceived or feared loss or abandonment, which Reid et al., (2007) described as targeted, purposeful instrumental violence that might either be impulsive or planned. Finally, there is violence related to chronic paranoia or related misconceptions, where paranoid and severely narcissistic character features would often be associated with episodic violence and enduring levels of tension or threat to others. The sense of fear and defence against threat would be most prominent (Reid et al., 2007).

Risks indicating potential violent behaviour in a clinical setting included: a history of past violent behaviour, paranoid thinking, a marked lack of empathy, the wish for pleasure or need for stimulation which overshadows judgment, impulse control and lack of appreciation of future consequences. Reid et al., (2007) found that intoxication was a substantial risk factor, as well as evidence of sadistic behaviour. In addition, it was suggested that children with markedly borderline or paranoid parents would be at a risk of either direct abuse or exposure to violent moods and unstable parenting. Paranoid, narcissistic, severe dependent and antisocial personalities were identified as being prone to violence under extremely stressful conditions. Dependent, obsessive compulsive and avoidant personality disorders were at less risk but may decompensate into violent behaviour (Reid et al., 2007).

CHAPTER 7

7.1.1 THE ROLE OF MAJOR PSYCHIATRIC ILLNESS

Addad, Benezech, Bourgeois and Yesavage (1981) conducted a study among 116 schizophrenic subjects in French mental hospitals and separated them into two groups; namely groups with a history of crime and those without a history of crime. The purpose of their study was to define the differences between paranoid and chronic undifferentiated schizophrenics. Bezenech, Bourgeois and Yesavage (1980) argued that paranoid schizophrenics might have different characteristics in their criminality than chronic undifferentiated schizophrenics and those with personality disorders. Baron (1977) claimed that the mentally ill as well as normal groups who commit crimes have more frequent childhood histories of pyromania, enuresis, and cruelty to animals, as well as having been subjected to more severe parental discipline compared to non criminal groups. This view was challenged to a large degree. Subsequent research suggested that this profile was unreliable and that the best predictor of future criminality was the history of prior criminality (Monahan, 1978; Koen, Kinnear, Corfield, Emsely, Jordaan, Keyter, Moolman-Smook & Stein, 2004).

Bezenech et al., (1980) conducted a study of 547 patients hospitalized in a French hospital for the criminally insane over the previous 10 years. Their study correlated diagnosis with criminal acts and various psychological and sociological parameters. They found that the highest percentage of murders was committed by patients diagnosed with schizophrenia, paranoid subtype. They also found that the diagnosis of paranoia was strongly associated with violent crimes against persons, especially murder, whereas personality disorders were more associated with criminal acts

involving property. In most of their subjects, the disorder was diagnosed between the ages of 30 years and 40 years and existed for an average of five years before the criminal act was committed. The authors noted that, although these cases of paranoia often started obscurely, certain common themes were noted in the progression of the paranoia and that delusions became fixed and well developed. Of note was that the patient began to take physical action in line with his or her delusions and that this would often lead to aggressive acts initially in the hospital setting, and then later generalise to the community. The authors reported that erotomanic delusions and abnormal sexual behaviours were rare.

Addad et al., (1981) found that the 53 schizophrenic participants out of the sample of 116 had no criminal record and presented with significantly better employment records, were more religious, were better educated and were more able to care for their financial needs. They further stated that this group was more likely to live at home and that their parents would most probably bring them to the institution. The criminal groups were more likely to be brought by the authorities and these groups were more attracted to drugs abuse. The authors found that the criminal group had poor ties of affection with family, unstable or broken homes and alcoholic fathers. Of note, was that negative relationship with the father was more reported in the non criminal group and that the criminal group reported more negative relations with the mother.

Addad et al., (1981) reported that 39 participants were diagnosed with paranoid schizophrenia and 24 were diagnosed with chronic undifferentiated schizophrenia. When the two groups were compared in relation to the crimes they committed, the paranoid schizophrenic group accounted for 14 homicides, 18 assaults and three cases of theft. Furthermore, the chronic undifferentiated schizophrenia group had committed 15 thefts, one murder and two assaults. The authors reported that the paranoid schizophrenic group was more frequently under the influence of their mental illness when the act was committed. The two groups did not differ in terms of premeditation and the paranoid schizophrenia group tended to be more secretive about their plans to commit a crime; possibly due to persecutory delusions as well as the fact that they tended to act alone against family and friends. Addad et al., (1981) further reported that the paranoid schizophrenic group had less previous criminal history and that the chronic undifferentiated group had committed more crimes in the past. This could possibly be due to the fact that paranoid schizophrenic patients tended to be high functioning with better jobs, income and high levels of education, which would fit the profile of no criminal record in their study. The paranoid schizophrenic group was reported to have cited vengeance as the motivation for the criminal offence and that they felt calm and relieved after the crime had been committed, while the chronic undifferentiated schizophrenic group reported personal gain as their motivation for the crime committed and described themselves as feeling satisfied afterwards. The study concluded that paranoid schizophrenia diagnosis had a particular association with crime against persons and that they would be prone to commit assault or murder of those known and close to them such as family (Addad et al., 1981).

Rollin (1965) in an early study, investigated unprosecuted mentally abnormal offenders. He defined the mentally abnormal offenders as those who had been diagnosed with mental illness and have committed criminal offences. He took the records of 78 unprosecuted male offenders who had been admitted during the year to Horton Hospital. Of the 78 participants' records, 53 had a recorded history of previous mental illness, 43 had multiple admissions to mental hospitals and 27 had spent an average of over six months in the institution. He reported that in 78 per cent of the cases, schizophrenia was diagnosed. The records revealed that about 40 per cent of the

cases had criminal records. Furthermore, 27 had committed more than one offence and 21 had served prison sentences ranging from one sentence in seven cases to two who had served over eleven sentences. He did a psychiatric and criminological follow up for a limited period of those who had been discharged or who had left the hospital. He found that 31 per cent had been readmitted to the mental hospital and that 41 per cent had committed further offences. Although this is an early study, it established the link between mental illness and crime but did not look at the complexity of issues facing the mentally ill in the outside world or at issues of institutionalisation and these effects on the increase in crime. The study did not distinguish between those with a comorbid diagnosis of mental retardation. Schizophrenia impacted negatively on social and occupational functioning. It was not uncommon for people who had been diagnosed with schizophrenia also to present with mental retardation and other comorbid psychiatric diagnosis. However, these were not clearly stated and defined in this study.

Benezech et al., (1980) studied violence in the mentally ill. They researched areas such as legal status, socio-economic group, and profession, quality of childhood experiences, complete listing of educational progress and difficulties, prior legal and psychiatric encounters, the reason for present admission, length of stay, final placement and recidivism. Their study reported findings on the diagnosis, type of act committed, the relationship between diagnosis and type of act committed, psychological background and recidivism. The study was done in France and the diagnostic criteria for schizophrenia differed from the DSM III or USA criteria in a sense that hallucinations needed to be present for longer than six months. Of note was that their study looked at psychotic disorders, non-psychotic disorders and personality disorders. Their results showed that there were significant differences between the acts committed by the subjects in different diagnostic categories. Subjects with psychotic diagnosis were reported to be

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significantly more likely to have committed acts against persons such as murder and assault. Two murders were reported, where one was committed by one subject with diagnosis of schizophrenia and the other by a subject with a diagnosis of paranoia. There were also three assaults by schizophrenic subjects. Addad et al., (1981) reported similar findings. Wallace et al., (1998), in a study of individuals convicted of serious offences in Victoria County, Australia, searched for evidence of a psychiatric contact on the county psychiatric register. Those with schizophrenia were found to be over four times more likely to be convicted of interpersonal violence and ten times more likely to be convicted of homicide than the general population.

Similarly, Hodgins (1992), in a 30-year follow-up of an unselected Swedish birth cohort, found that compared with those with no mental disorder, males with major mental disorder had a fourfold and women a 27.5-fold increased risk of violent offences. A later study using the same methodology revealed similar findings (Hodgins et al., 1996). There was no separate data provided for those diagnosed with schizophrenia. Schizophrenia was included as part of a heterogeneous group of disorders and there was no diagnostic breakdown of subjects. The first cohort study to demonstrate the quantitative risk of violent behaviour for specific psychotic categories followed an unselected birth cohort of 12 058 individuals prospectively for 26 years (Tiihonen, Isohanni, Rasanen, Koiranen & Moring, 1997). The risk of violent offences among males with schizophrenia was seven-fold higher than controls without mental disorder. Brennan et al., (2000) traced all arrests for violence and hospitalisations for mental illness in a birth cohort followed to age 44 years. Schizophrenia was the only major mental disorder associated with increased risk of violent crime in both males and females, adjusting for socio-economic status, marital status and substance abuse. However, it is noted that some violent crimes would not be reported leading to inaccurate statistics. Similarly not all mentally ill patients would be sent for hospitalisation. This would be particularly true in South Africa and possibly other countries, given that there would be alternative forms of treatment. Arseneault, Moffitt, Caspi, Taylor and Silva (2000) studied the 1999 year prevalence of violence in 961 young adults who constituted 94 per cent of a total city birth cohort. Three Axis I disorders including alcohol dependence, marijuana dependence and schizophrenic spectrum disorder were uniquely associated with violence after controlling for demographic risk factors and all other comorbid disorders. The definition and measurements of violence would vary, thus making the results of the study only generalisable to their sample.

Cote and Hodgins (1992) conducted a study on the prevalence of major mental disorders including schizophrenia, schizophreniform disorder, major depression, bipolar disorder and organic brain syndrome among homicide offenders. They found that the prevalence of major mental disorder was higher among male offenders convicted of homicide than among offenders who had never been convicted of a homicide. They reported that there were 109 subjects who suffered from major mental disorder. Thirty one subjects had a diagnosis of schizophrenia, four schizophreniform disorder, 51 major depression, 21 bipolar mood disorder and two organic brain syndrome. They found that 35 per cent of homicide offenders as compared to other offenders suffered from a major mental disorder. They discovered that the homicide offender group had the higher prevalence of schizophrenia and lower prevalence of drug abuse and antisocial personality disorder as compared to the non homicide group. Cote et al., (1992) found that alcohol abuse/dependency associated with major depression significantly distinguished the homicide offenders. Furthermore, the authors reported that in 82 per cent of the cases of schizophrenia, 83 per cent of those who manifested a major depression and one of the two subjects with a bipolar mood disorder, the mental disorder was active prior to the homicide. The study did not differentiate between major mental disorders. Similarly, a study of all homicide offenders in Copenhagen, Denmark, over a 25-year period revealed that 20 per cent of the men and 44 per cent of the women had a diagnosis of psychosis. Among those who received the diagnosis of psychosis, 13 per cent of the women and 41 per cent of the men were found to be substance abusers as well (Gottlieb, Gabrielsen and Kramp, 1987).

In a study looking at the risk markers in a South African population, Koen et al., (2004) conducted a study on violence in male patients with schizophrenia. They reported that many factors had been related to the manifestation of violence among psychiatric inpatients and that these would include a history of previous violence, level of violence at admission and family history of violence. The authors recorded that previous violent behaviour was a strong predictor of current violence in the schizophrenic patient group. The link between violence in schizophrenia and higher comorbidity for psychopathy, medication refusal, comorbid alcohol abuse, and numerous previous hospitalisations as well as male sex was noted in their study.

Gendreau et al., (1996) argued that prior violence and criminality have been found to be the best predictor of future violence and criminality. Similar relationships have been found among mentally disordered offender samples (Bonta, et al., 1998; Feder, 1991; Harris, Rice & Quinsey, 1993; Phillips, Gray, MacCulloch, Taylor, Moore & Huckle, 2005; Porporino & Motiuk, 1995; Rice, Harris, Lang & Bell, 1990), hospital-discharged patient samples (Elbogen, Swanson, Swarts & Van Dorn, 2005; Satsumi, Inada & Yamauchi, 1998; Steadman et al., 2000), patient cohorts (Wessely, 1998; Wessely, Castle, Douglas & Taylor, 1994), mental health outpatient service user samples (Brekkie, Prindle, Bae & Long, 2001; Hwang et al., 1996), and community-based

epidemiologic samples (Swanson, 1993). Gendreau et al., (1996) reported that prior arrests, prior convictions, and self-reported prior violence were highly predictive of future offending and violence. Moreover, they argued that time series models provided evidence of an association between past violence and subsequent violence over relatively short time periods. Skeem, Tiemann, Miller, Mulvey and Monahan (2006) found that a violent incident increased the odds of violence occurring in the following week by 1.4 times. In contrast, Mulvey, Odgers, Skeem, Gardner, Schubert and Lidz (2006) found that violence reported on any given day increased the odds of violence occurring on the next day by 5.4 times. Sirotich (2008) argued that in both studies, participants were sampled among patients who were evaluated in the emergency room of an urban psychiatric hospital and were selected using a prescreening procedure because of their high potential for repeated involvement in violence. Furthermore, the participants were limited to individuals 14 to 30 years old who did not present with delusions or carry a diagnosis of schizophrenia but endorsed heavy substance use, and a recent history of violence that was within a prior two months period. In addition, Gendreau et al., (1996) reported that a history of delinquency prior to adulthood was found to be a significant factor related to violence and criminality in both mentally non-disordered and mentally disordered samples. Similar findings were reported in other studies (Hodgins & Jason, 2002; Solomon & Draine, 1999; Tengstrom, Hodgins & Kullgren, 2001). Among mentally disordered samples, juvenile delinquency, early arrests and young age at index offence have been found to be strong predictors of criminality and violence (Bonta et al., 1998; Solomon et al., 1999; Rice et al., 1990; Tengstrom et al., 2001; Harris, et al., 1993, Hodgins & Cote, 1993).

Tuninger, Levander, Bernce and Johansson (2001) stated that violence was common among patients with psychosis. They conducted a descriptive study to examine the relations between

diagnoses, crimes, demographic variables and aggressive behaviour during admission to hospital. Their study was conducted during a 14 month period, where 257 patients admitted to a wellstaffed psychiatric unit due to the display of violent behaviour during a psychotic episode. The patients were clinically assessed at the beginning and end of admission for violent crime. The researchers found that 88 per cent of the patients were diagnosed with schizophrenia, and 73 per cent with affective psychosis. The authors reported that initially these patients presented with high scores for positive symptoms and low global assessment of functioning score and these improved significantly during admission. Their results indicated that 27 per cent of the patients were admitted twice or more during the investigative 14 month period. Furthermore, they found that men were referred to the unit more frequently than women. Thus, they concluded that psychotic disorders were more severe in men. In addition, they found that 16 per cent of the patients were homeless often due to disturbing behaviour including aggressiveness and psychotic symptoms. Tuninger et al., (2001) reported that every fifth patient had not had contact with relatives or close friends during the 3 months preceding the admission. Also, they observed that 40 per cent of the patients had substance abuse problems. They concluded that these patients were mentally unwell with multiple problems and were socially marginalised. The criminality rate was high among patients, as the researchers found that 38 per cent of the patients had a police record of previous criminality compared to six per cent of the general population. Tuninger et al., (2001) reported that of those with a police record, 25 per cent were women and 46 per cent were men. The authors recorded that nine patients had at least 100 crimes recorded. Furthermore, at least one violent crime was committed by the non-prosecuted patients compared to 68 per cent committed by the prosecuted patients. They reported that the diagnosis of the female patient with the maximum number of seven violent crimes was schizophrenia. They found that the male patient with the maximum number of violent crimes (33) had a similar diagnosis of schizophrenia. They concluded that sex, age of first crime, cumulative number of crimes and criminal versatility were significantly associated with repeated violence.

Eronen et al., (1996) conducted a longitudinal study looking at mental disorders and homicidal behaviour in Finland. This study reported that the Finnish police were able to solve 95 per cent of all homicides as most homicide offenders were subjected to an intensive psychiatric evaluation. The researchers examined 693 homicide offenders out of 994 during an eight year period. The authors used the prevalence of mental disorders of the homicide offenders to calculate the odds ratios for the statistical increase in risk associated with specific mental disorders. Their results indicated that schizophrenia increased the odds ratio for homicidal violence by eightfold in men and 6.5 fold in women. Antisocial personality disorder increased the odds ratio over tenfold in men and over fiftyfold in women. Furthermore, Eronen et al., (1996) found that affective disorders, anxiety disorders, dysthymia and mental retardation did not elevate the odds ratio to any significant extent. They concluded therefore, that homicidal behaviour in a country with a relatively low crime rate appeared to have a statistically significant association with some specific mental disorders already mentioned.

Since the 1960s, when mentally ill individuals started being released from state mental hospitals in large numbers as a result of deinstitutionalisation, there have been only two small studies in the United States of how many homicides were committed by severely mentally ill individuals (Grunberg, Klinger & Grumet, 1977). Dawson and Langan (1994) looked at murder in families in the United States of America and reported that in the study of Albany County, New York, 28 homicides were committed between 1970 and 1975, whereby eight individuals (29 per cent) were

found not guilty by reason of insanity. Furthermore, they reported that all were diagnosed with schizophrenia, and most were not being treated at the time of the crime. In addition, the authors concluded that closer follow-ups of psychotic patients, especially those diagnosed with schizophrenia, would improve the welfare of both patient and community. Grunberg et al., (1977) reported similar findings. Wilcox (1985) conducted a similar study in Contra Costa County, California. He found that among 71 offenders convicted for homicide between 1978 and 1980, seven (10 per cent) had a diagnosis of schizophrenia, and one homicide offender had a diagnosis of drug-induced psychosis. Furthermore, all had been psychiatrically evaluated prior to their crimes and refused medications. Three of the seven diagnosed with schizophrenia also had strong prior apprehensions about dangerousness (Wilcox, 1985). These studies concluded that an average of 9.3 per cent of homicides were committed by individuals with severe psychiatric disorders including schizophrenia, bipolar disorder, delusional disorder, and major depression with psychosis. It would appear that factors such as adherence and compliance with treatment, abstinence from substance abuse and effective admission in psychiatric hospitals for comprehensive psychiatric treatment including an effective process of de-institutionalisation and reintegration of the patients into the community, would be essential in the prevention of criminal and violent behaviour.

Mulvey et al., (1994) argued that there was no sizeable body of evidence that clearly indicated the relative strength of schizophrenia or mental illness in general as a risk factor for violence compared with other risk factors. Monahan (1997) argued that compared with the magnitude of risk associated with the combination of male gender, young age and lower socio-economic status, the risk of violence presented by mental disorder was modest. Comorbid substance abuse and acute psychotic symptoms would be the two factors that would appear to identify those with schizophrenia at increased risk of committing violent acts. It has been demonstrated repeatedly that schizophrenia with comorbid substance abuse increased the risk of violence considerably compared with schizophrenia without comorbidity (Swanson et al., 1990; Cuffel et al., 1994; Tiihonen et al., 1997; Wallace et al., 1998). It is important to note that the risk of violence in those with comorbidity is further increased but not caused by it (Arsenault et al., 2000; Brennan et al., 2000).

7.1.2 THE ROLE OF SUBSTANCE ABUSE

Research has also shown that substance abuse increases the risk of developing a mental illness. This is implied in the section above. The current section aims to explore the role of substance abuse in depth, as it remains a major factor among psychiatric patients and major contributor to increase of criminal behaviour. Cote et al., (1992) suggested that a large number of male inmates with major disorders were also substance abusers. Seedat et al., (2009) argued that alcohol and substance misuse has been cited as a contributory factor to the level and degree of violence in South Africa. The National Injury Mortality Surveillance System (2007) suggested that nearly 40 per cent of homicides were committed with sharp objects used in stabbings and that over a third resulted from gun shots. In addition, in 57.7 per cent of tested homicide cases, high alcohol concentrations were found in their blood levels. Seedat et al., (2009) argued that these deaths, which were associated with the use of firearms or sharp objects and fighting between men, occurred in the context of entertainment linked to alcohol consumption. Sawyer-Kurian, Wechsberg and Luseno (2009) also suggested that there was a link between drugs such as methamphetamines and violent sexual behaviour. They argued that such drugs might be used to get a woman high so that several men could rape her without resistance. In addition, the researchers found that most Black and Coloured men agreed that alcohol and drugs caused people to be aggressive and or uninhibited and that this could potentially lead to rape. Conversely, Louw et al., (2005) argued that there might be only a weak, if any, link between substance abuse and violence. These authors argued that there were many people who abused alcohol/other substances but did not commit violent offences; and, conversely, there were people who committed violent crimes without any history of alcohol/other substance abuse. Similarly, van der Merwe et al., (2007) argued that the relationship between alcohol use and violence was unlikely to be simple, linear or unidirectional.

A variety of psychiatric conditions could result from the use of alcohol or other drugs. Mental states resulting from the ingestion of alcohol would include intoxication, withdrawal, disinhibition, hallucinations, and amnesia. Similar syndromes may occur following the use of other drugs that affect the central nervous system. Other drugs commonly used non-medically to alter mood would be barbiturates, opioids such as heroin, cocaine, amphetamines, hallucinogens such as LSD (lysergic acid diethylamide), marijuana, tobacco, TIK (Tierrechtsinitiative Koln) and CAT (Methcathinone). Treatment would be directed at alleviating symptoms and preventing further abuse by the patient of the substance.

Koen et al., (2004) divided the participants in their study into two categories, i.e. a violent and non violent group. All participants were males and diagnosed with schizophrenia. They found that more patients from the violent group reported alcohol abuse in the week prior to admission but that there were no withdrawal symptoms noted during admission. Furthermore, delusions of control were significantly more common among the violent group. The authors found that there were seven incidents of inpatient violence that were reported on their aggression scale by the patients who were already classified in the violent group. Their results indicated that in the violent group poor impulse control, tension, hostility, uncooperativeness, excitement and agitated behaviour with an aggressive component were significantly higher. The conclusion drawn from the study was that schizophrenia patients in the violent group were significantly more likely to abuse alcohol and that combining this with cannabis use significantly increased the odds ratio for violent behaviour. Field and Arndt (1980) supported the finding that there was an association between increased alcohol consumption or cannabis use and the increased incidence of violence. Therefore, this association would be likely to predict a higher risk of violence in schizophrenic patients.

Koen et al., (2004) pointed out that the association between alcohol abuse and violent behaviour was not specific to patients with schizophrenia. In their study it was reported that the violence was not an intoxication effect as the behaviour occurred some days after the admission into the ward. It was further pointed out that the violent behaviour was also not associated with withdrawal phenomena, as there were no withdrawal symptoms observed after admission. The authors proposed that the alcohol abuse and violent behaviour could both be manifestations of disturbed impulse control, which was further exacerbated by the use of cannabis and the presence of psychotic symptoms. Koen et al., (2004) found no significant difference between the two groups in terms of cannabis use, drug abuse, and the presence of auditory hallucinations, non compliance with medication and number of admissions to hospital.

Taylor (1985) reported that 46 per cent of a sample of psychotic offenders presented with acute symptomatology and driven by delusions. Taylor (1998) claimed that delusions were an

extremely common psychopathological phenomenon in psychosis and that serious violence was not. As a result, the author argued that other factors could be operating. Link et al., (1992) compared arrest rates and self-reported violence in a sample of community residents with no history of psychiatric contact with current and former patients with heterogeneous diagnoses from the same area. Former patients invariably were more violent than the never-treated community sample, and in almost all the difference between the groups could be accounted for by active symptoms. Swanson et al., (1990) reported that specific threat or control override symptoms largely explained the relationship. These threat or control override symptoms represented experiences of patients feeling that people were trying to harm them and experiences of their minds being dominated by forces outside their control. These results have been replicated subsequently (Swanson et al., 1990, 1996, 1997; Link et al., 1998). The data in these studies, however, have been criticised for being retrospective, having been gathered for other purposes and having weak measures of delusions and violence. The MacArthur Violence Risk Assessment Study has largely overcome these methodological limitations and it cast doubt on the importance of threat or control override delusions as mediators for violence (Appelbaum, Robbins & Monahan, 2000). Monahan, Steadman, Appelbaum, Robbins, Mulvey and Roth (2001) suggested that the reliance on self-report measures may have resulted in the mislabelling of other phenomena that could contribute to violence as delusions.

Monahan et al., (2001) reported that parental substance abuse has been found to be associated with crime and violence. They found parental alcohol abuse to be associated with violence among post-discharge psychiatric patients and mentally disordered offenders. The father's excessive drug use was found to be associated with violence among discharged psychiatric patients, though the

association was stronger for White patients than for African-American patients. The effect of excessive maternal drug use was found to interact with patient biological sex, with the entire effect taking place for males and none occurring for females (Monahan et al., 2001). Tengstrom et al., (2001) found that parental substance abuse impacted upon the frequency of violence and criminality among persons with mental disorder.

Friedman et al., (2005) conducted a study reviewing gender differences in criminality, with a particular focus on the diagnosis of bipolar disorder with co-occurring substance abuse. They recorded high rates of substance-related problems. Fifty-six per cent of the population of patients in this study had dual diagnoses, and those with rapid-cycling bipolar disorder had been charged with drug or alcohol-related offences. Significantly, Friedman et al., (2005) found that more men (69 per cent) had substance-related charges than did women (38 per cent). However, the investigators found that women who abused cocaine were more likely to be charged with a crime than those who had not. Moreover, Friedman et al., (2005) claimed that their results showed that 65 per cent of women who abused cocaine had been charged with a crime, compared with women who did not abuse cocaine (38 per cent). Furthermore, they found that there was no difference between men who abused cocaine and those who did not in the subgroup of those who had been charged with crimes. Friedman et al., (2005) argued that their findings highlighted the need for early identification of bipolar disorder with co-morbid substance abuse, especially among those individuals in prison who have dual diagnoses. Moreover, they proposed that women in this latter population might have had specific treatment needs, as they were four times more likely to have been arrested in their lifetimes than were women in the general population. In addition the authors commented that it was important to assess the severity and frequency of cocaine use

among the women who abuse cocaine. They concluded that women who abused cocaine were more likely to be charged with a crime than were women who had not, but the same result was not found among men who abused cocaine.

The National Criminal Justice Reference Service (1999) reported that a strong relationship existed between drug abuse, violence, and criminal behaviour and that this had pervasive effects on society. Hoaken and Stewart (2003) have shown that drugs could have direct and indirect effects on criminal behaviour. They argued that the pharmacological effects of drugs could have a direct impact on the prevalence of violence. For example, Chermack and Taylor (1995) reported that intoxicating doses of alcohol have been shown to be related to aggressive behaviour, such as domestic violence and disorderly conduct. Drugs could also have indirect effects on violence and criminal behaviour, because individuals with drug abuse or dependence often commit crimes or engage in violence such as robbery, theft, and prostitution as well as possession and selling of narcotics (Hoaken et al., 2003). The drug or violence relationship was further complicated by the intoxicating doses and neurotoxic or withdrawal effects of specific drugs of abuse such as alcohol, cocaine, heroin, benzodiazepine, or PCP (Hoaken et al., 2003).

Friedman et al., (2005) concluded that it was important to highlight the central role that substances played in criminal behaviour, as rates of substance use were extremely high in the mentally ill and criminal justice populations. Fals-Stewart, Golden and Schumacher (2003) argued that substance use played a facilitative role in violent and criminal behaviour. For example, they reported that substance use has been shown to lead to male-against-female violence, with the physical violence occurring within two hours after the intoxicating dose of the substance takes effect. Brookoff, O'Brien and Cook (1997) showed that in their study of all men

who were arrested for a domestic violence charge against a female partner, 92 per cent were found to have some substance in their systems at the time of their offences. In addition, Sadock and Sadock (2003) reported that substance use could induce a variety of psychiatric disorders, including psychosis, depression, and bipolar disorder. In addition, substance use alone could lead to non-compliance with treatment including lack of clinic attendance, participation in psychotherapy, or compliance with medication. These studies established the importance of assessing gender differences and criminality among patients with dual diagnoses, and the need to uncover the specific role of substance use among men and women with criminal histories.

Leoschut et al., (2009) found in their study that the absence of substance use was a significant protective factor against offending. They suggested that young people who did not use substances were 4.4 times more likely not to commit criminal offences than those who consumed alcohol and other drugs.

Swanson et al., (1990) conducted a large psychiatric epidemiological survey and generated a measure of violence from items embedded in symptom criteria of antisocial personality and alcohol abuse or dependence disorders. They found that most mentally ill people were not violent and that only 7 per cent had committed any violent acts in the previous year. However, they suggested that this percentage was higher than for those who did not meet any diagnostic criteria, which was 2 per cent. They found that substance abuse or dependence carried higher prevalence rates of violence than major mental illness (alcohol 25 per cent, drug 35 per cent). Furthermore, they found that the comorbidity of major mental illness with substance abuse raised the rate of violence to 29 per cent above mental illness alone. In addition, when they controlled for age, gender, socio-economic status and marital status, the results did not change. Swanson et al.,

(1990) found that in terms of the risk of violence, major mental illness was not important as compared to being young, male, single, from a lower socio-economic background and substance abusing or substance dependent. In their study, the measures of violence only indicated the presence or absence of a few major violent behaviours.

Teplin (1990) conducted a study with jail detainees who had severe psychotic illness (schizophrenia or major affective disorder). This study investigated psychiatric and substance abuse disorders among male urban jailed detainees. The prevalence rates for nine psychiatric and substance use disorders were compared by age and race using a random sample of 728 male jail detainees. He reported that two thirds of the sample had had a disorder other than antisocial personality during their lifetimes. In addition, more than 30 per cent had either a severe mental disorder or substance use disorder. It was noted that the detainees with severe mental disorder or substance abuse were most often in jail because they had committed non-violent crimes. Teplin (1990) also found that rates of substance abuse were extremely high. The rates of substance abuse were 29.1 per cent at the time of arrest and 61.3 per cent for lifetime use. Furthermore, this study found that antisocial personality disorder affected nearly 50 per cent of the sample. The author concluded that the detainees were highly likely to be substance abusers or substance dependence (alcohol as 84.8 per cent and drug abuse as 57.9 per cent) and that they were likely to have been using at the time of their arrests. Several research studies have estimated the prevalence of schizophrenia among prison inmates. Problems of unstandardised diagnoses and the frequent absence of comparison data among the general population continue to be a confounding factor; the evidence suggested an over-representation of those with schizophrenia among offender populations (Walsh, Buchanan & Fahy, 2002).

7.1.3 THE ROLE OF INTELLECTUAL DISABILITY

Reid (2000) noted that there was considerable evidence that individuals with mental retardation, now termed intellectual disability (DSM IV TR, 2000), have higher conviction rates than other defendants. Furthermore he argued that, though mental retardation was not a strong correlate for serious criminal behaviour, individuals with intellectual disability proportionately exceeded the general population. They also were more likely to experience exploitation by others to commit offences, ease of apprehension and arrest, have difficulty adapting to chaotic jail conditions, difficulty understanding their pre-trial or incarcerated situations, and faced exploitation during incarceration. Intellectually disabled people were highly likely to be incarcerated for a criminal offence and this could be due to exploitation. The fact is they may not always comprehend the consequences thereafter. Reid (2000) noted that mental disorders such as mood disorders, psychotic disorders, intellectual disability and impulse control disorders as well as brain damage were common in incarcerated populations and that they tended to worsen in prison. He warned that thorough assessments were required in the prison setting to rule out the mental illness. Reid (2000) reported that inmates with mental illness, who stood out and caused problems would receive attention and treatment quickly but that those who were quietly psychotic or depressed were hard to recognise and often overlooked. These would include those in the prodromal phase as well.

Walsh (2006) stated that there were a number of different routes by which level of IQ might be related to offending. People with a high level of IQ were just as likely to break the law as low-IQ people, but the less intelligent were more likely to get caught. Furthermore, the researcher argued that if this was the case, low IQ would be related to criminal offending only insofar as it led to a greater probability of apprehension and prosecution (Walsh, 2006). In testing this hypothesis

based on a large birth cohort, Walsh (2006) found no support for it. Subjects were asked to selfreport delinquent activity, which was compared with official police records. These provided three distinct groups, namely self-reported delinquents with a police record, self-reported delinquents with no police record, and non-delinquents, as assessed both by self-reports and police records. IQ scores among the groups were compared. Walsh (2006) found that the full-scale, verbal, and performance IQ means of Groups 1 and 2 did not significantly differ from one another, suggesting that undetected delinquents were no brighter than their less fortunate detected peers. Both groups had significantly lower full-scale and VIQ means, but not lower PIQ means, than non-delinquents. Walsh (2006) observed that crime rates fluctuated greatly while IQ averages did not. Furthermore, Walsh (2006) added that, if crime rose irrespective of IQ changes, factors other than IQ could be responsible for this rise. The author added that low IQ was simply a risk factor differentially expressed under different social conditions. He emphasised that a generation or two ago, when most families were intact, when there was a higher level of moral conformity, and when entry into the workforce demanded less academic preparation, people with relatively low IQs were more insulated from crime by social control mechanisms. Social conditions were different from the current ones, and as a result low-IQ individuals are less insulated from crime (Walsh, 2006). Others suggested that the link between IQ and criminality simply reflects the link between socio-economic status and criminality. They argued that low socio-economic status is related to low intelligence quotient and crime. It is also noted that performance on IQ tests was influenced by socio-economic status, i.e. children from a middle class background with optimal surroundings perform better on IQ tests. Thus, the intelligence quotient-criminality relationship was regarded simply as a consequence of the socio-economic status-criminality relationship. Socio-economic status affected the relative contributions of genes and environments, but when socio-economic status was completely controlled by examining the relationship between

intelligent quotient and crime within families, the results indicated that criminal siblings' average IQ points were lower than those of their non-criminal full siblings.

The most usual explanation was that low IO led to antisocial behaviour through poor school performance. That would suggest that low IQ sets individuals on a trajectory, beginning with poor school performance, which results in a number of negative interactions with other people in the school environment, leading them to drop out of school and associate with delinquent peers. The notion that IQ influences offending via its influences on school performance has much to commend it. Ellis and Walsh (2000) reviewed 158 studies linking IQ to criminal and delinquent behaviour. They found that 89 per cent that were based on official statistics and 77.7 per cent based on self-report showed a significant link between IQ and criminal behaviour. On the other hand, they found that all 46 studies exploring the link between grade point average and antisocial behaviour showed a significant link. Thus, they concluded that actual performance measures of academic achievement such as grade point average were better predictors of antisocial behaviour than IQ. Furthermore, they added that academic achievement was a measure of intelligence plus many other personal and situational characteristics, such as conscientious study habits and supportive parents. Finally, they asserted that IQ represented a limited set of cognitive traits and that High-IQ miscreants could do much more damage than their low-IQ counterparts due to the greater deviousness made possible by a high IQ. Ellis et al., (2000) noted that the IQs of Nazi war criminals served as a reminder not to confuse IQ with worth.

Hodgins (1992) stated that although people with mental handicap or intellectual disability constituted somewhere between 2.5 per cent and 3 per cent of the U.S. population, experts estimated that they might constitute between 2 per cent and 10 per cent of the prison population.

The disproportionate number of persons with intellectual disability in the incarcerated population most likely reflected the fact that people with this impairment who broke the law were more likely to be caught, more likely to confess and be convicted, and less likely to be paroled. As with people of normal intelligence, many factors could prompt people with intellectual disability to commit crimes, including unique personal experiences, poverty, environmental influences and individual characteristics. Attributes common to intellectual disability could in particular cases, also contribute to criminal behaviour. The very vulnerabilities that cause problems for people with intellectual disability in the most routine daily interactions could, at times, lead to tragic violence. Hodgins (1992) studied mental disorder, intellectual deficiency and crime. His study stemmed from the notion that criminality among patients in psychiatric hospitals and mental disorders among incarcerated offenders have suggested an association between the major mental disorders and crime. He found that men with major mental disorders were 2.5 times more likely than men with no mental disorder or mental handicap to be registered for a criminal offence and four times likely to be registered for a violent offence. He further found that women with major mental disorders were five times more likely to be registered for an offence and 27 times more likely to have committed a violent crime than women with no mental disorder or mental handicap. Intellectually handicapped women were four times more likely to offend and 25 times more likely to commit a violent offence than women with no mental disorder and mental handicap. The people who were considered moderately intellectually handicapped (IQ score of lower than 44) were 13 times more likely than those in normal range to commit violent offences (Hodgins, 1992). He thus concluded that individuals with major mental disorders and those with intellectual disability were at increased risk for offending and violent offending in particular. Monahan (1992) argued that the mentally ill people were no more violent than the general population. Although mental illness might put one at risk, there might be other factors that contribute such as comorbid diagnosis like substance abuse and compliance and adherence to medication as well as social support.

Reid (2000) noted that many people with intellectual disability were persecuted, victimised and humiliated because of their disability. The desire for approval and acceptance and the need for protection could lead a person with intellectual disability to comply with behaviours without question or allow instances where they could be exploited. People with intellectual disability could also be manipulated by those with greater intelligence and become the unwitting tools of others. Many of the cases in which people with intellectual disability have committed murder involved other participants who did not have intellectual disability or occurred in the context of crimes, often robberies that were planned or instigated by other people. People with intellectual disability might also engage in criminal behaviour because of their characteristically poor impulse control, difficulty with long-term planning, and problems in coping with stressful and emotionally fraught situations. They might not be able to predict the consequences of their actions or resist a strong emotional response. Eronen et al., (1996) reported that the homicides committed by people with intellectual disability acting alone were often unplanned; they were impulsive acts of violence in the context of panic, fear, or anger, often committed when another crime, such as a robbery, went wrong. Limited intellectual skills and poor planning capacities could mean that people who had intellectual disabilities were more likely than people of normal intelligence to get caught if they committed crimes. A suspect with intellectual disability would also be less likely to know how to avoid incriminating him/herself, hire a lawyer and negotiate a plea bargain.

Gibbons, Gibbons and Kassin (1981) surveyed college students' attitudes toward intellectually disabled criminal offenders and their estimates of the types of crimes most often committed by mentally handicapped persons. The results of their study indicated that the mentally handicapped offender received a lighter sentence regardless of the type of crime, and that students' attitudes tended to be lenient as they felt that the intellectually disabled person was coerced into committing the crime and confused by it. Su, Yu, Yang, Tsai and Chen (2000) studied the characteristics and criminal behaviour of mentally handicapped individuals. They observed that this population remained under-studied. Their retrospective study sought to establish a reference of criminal behaviour characteristics in an ethnic Chinese intellectually disabled group, where they evaluated 32 impaired offenders. The researchers reported that of the 32 offenders, only four (12.5 per cent) were female. Furthermore, the authors indicated that their mean age at the time of the offences was 31 years. Su et al., (2000) reported that based on IQ testing, 23 (71.9 per cent) of the group fell into the mild range of mental handicap, seven (21.9 per cent) into the moderate intellectual disability range, and two (6.2 per cent) into the range of severe intellectual disability. Furthermore, they reported that nineteen (59.3 per cent) of the group suffered from an additional mental disorder; eight (25 per cent) had definite neurological deficit and fourteen (43.8 per cent) were repeat offenders. They found that a total of 24 (75 per cent) of the offenders had committed crimes against property, with 13 having committed petty theft. Furthermore, the pattern of offending showed differences from that of the general population or other mental disorders. Su et al., (2000) noted that the property offences, especially petty theft and arson, were more frequently seen among the mentally handicapped offenders compared to the general population. In addition, they reported that sexual offences were not significantly reported. They found that people in their sample had high rates of unemployment with severe psychosocial disadvantage, and childhood behavioural problems. Their study had a small sample, thus limiting generalisability of the results.

Lund (1990) reported on data from the Danish Central Criminal Register, that the total number in mentally handicapped offenders serving statutory care orders on a census day decreased from 290 in 1973 to 91 in 1984. The author attributed this decrease of criminal offending by the intellectually disabled to shorter sentences and a dramatic decrease in the number of sentenced borderline mentally handicapped offenders. Furthermore, the researcher reported that the total number of sentences per year decreased, while the number of first-time sentences was stable. Lund (1990) noted that crimes of property were decreasing among the mentally handicapped criminal offending population, while violence, arson, and sexual offences were increasing. The author reported behaviour disorder in 87.5 per cent of 91 offenders serving care orders in 1984. The results indicated that offensive behaviour was significantly predicted by early institutionalisation, having intellectually low functioning or divorced parents of low socioeconomic status and a behaviour disorder of a social-aggressive type. In addition, there was no evidence that biological factors played a significant role in predicting criminal behaviour among this population (Lund, 1990). Although the report was compiled on the basis of recorded data, incomplete records could have skewed results.

Holland, Clare and Mukhopadhyay (2002) investigated the relationship between criminal offending and the presence of an intellectual disability. These authors argued that studying intellectual disability was problematic due to the difficulties associated with the definition of intellectual disability itself. Furthermore, the researchers suggested that the fact that much

criminal offending would be undetected or unreported and that studies could only investigate those already involved with the criminal justice process, made studying this field difficult. They noted that studies that have used IQ as a continuous variable indicated that significantly belowaverage intellectual ability was an independent predictor of future offending. They claimed that whilst people with intellectual disability might be over-represented in parts of the criminal justice system, given the intellectual and other psychosocial disadvantages which they experienced, the level of offending behaviour in this particularly vulnerable group was strikingly low.

Holland et al., (2002) proposed that two broad groups of individuals could be identified. The first larger group was one of people for whom social disadvantage and mental ill health, particularly substance abuse, coupled with a significant intellectual impairment, were the main characteristics. The second smaller group of individuals was already known to intellectual disability services as service users. These users may have presented with behavioural problems that may have bordered on the line of offending or confused for offending behaviour. Holland et al., (2002) suggested that making the distinction between difficult behaviour and offending behaviour was important for understanding how difficult behaviour became identified as antisocial/criminal behaviour. The authors stated that the group of people in the second group had very little that was known about the nature of their behaviour and how such behaviour would have led to contact with criminal justice system. They indicated that there was a need for research to move from prevalence and descriptive studies to investigating the processes which determined movement in and out the criminal justice system.

Holland et al., (2002) noted that these two groups were not absolute and that there were overlaps. Furthermore, the researchers asserted that there was little evidence that people with intellectual disability were over-represented among sexual offenders and fire setters. The authors stated that regardless of the level of intellectual ability, the most striking predictors of contact with the criminal justice system were male gender and youth. Nevertheless, the researchers argued that intellectual disadvantage seemed to increase the risk of illegal or antisocial behaviour, particularly in the context of social disadvantage in childhood and adulthood, substance abuse and a background of familial offending. They recommended that more research was required to address whether interventions were most likely to be effective if these interventions were provided in childhood and targeted towards those people with intellectual disability who appeared most at risk, or focused around the periods when such behaviours were most likely. Holland et al., (2002) noted that the present political emphasis on public protection and proposals for significantly broader mental health legislation raised the danger of a re-expansion of institutional models of care, rather than the development of multi-agency support networks.

CHAPTER 8

8.1.1 THE ROLE OF PERSONALITY DISORDERS

This section discusses the role of personality disorders in relation to criminal behaviour. Personality disorders that are at high risk for criminal behaviour and violence are discussed. The DSM-IV-TR, APA (2005) criteria for these personality disorders are explored in terms of their characteristics and their association to violent behaviour. Sadock et al., (2007) described personality as the characteristic way in which an individual thinks, feels, and behaves; it would account for the ingrained behaviour `patterns of the individual and would be the basis for predicting how the individual would act in particular circumstances. Personality would embrace a person's moods, attitudes, and opinions and would be most clearly expressed in interactions with other people. Personality disorder is described as a pervasive, enduring, maladaptive, and inflexible pattern of thinking, feeling, and behaving that either significantly impairs an individual's social or occupational functioning, or causes the person distress (DSM-IV-TR, APA, 2005).

Theories of personality disorder, including their descriptive features, aetiology, and development, would be as various as theories of personality itself. For example, in trait theory (an approach towards the study of personality formation), personality disorders are viewed as rigid exaggerations of particular traits. Psychoanalytic theorists explain the genesis of the disorders in terms of markedly negative childhood experiences, such as abuse, that significantly alters the course of normal personality development. Social learning and sociobiology theories focused on

the learned maladaptive coping and interactional strategies embodied in the disorders (Clarking & Lenzerwerger, 1996; Kielser, 1996).

The DSM-IV-TR, APA (2005) recognises ten personality disorders. It would be important to note that the mere presence of a personality trait, even having it to an abnormal extent, would not be enough to constitute a disorder; rather, the abnormality should also cause disturbance to the individual or to society. Personality disorders have a tendency to co-occur with other psychological symptoms, including those of depression, anxiety and substance use disorders. Because personality traits are regarded by definition as being virtually permanent, these disorders are considered to be only partially, if at all, amenable to treatment. Three of the personality disorders relevant to this study will be discussed in detail. These would include paranoid, antisocial and borderline personality disorders.

Paranoid personality disorder is described as being marked by a pervasive suspiciousness and unjustified mistrust of others (DSM-IV-TR, APA, 2005). The disorder would be apparent when the individual misinterprets words and actions as having a special significance for him/her, or as being directed against him/her. Sometimes such people are guarded, secretive, hostile, quarrelsome or litigious and they can be excessively sensitive to the implied criticism of others. The disorder may develop over a lifetime, sometimes beginning in childhood or adolescence. Paranoid personality disorder is reported as being more common in males (Millon & Davis, 1996; Parker, Both, Olley, Hadzi-Palvovic, Irvine & Jacobs, 2002).

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Those who have a diagnosis of antisocial personality disorder would typically exhibit a personal history of chronic and continuous antisocial behaviour that involved violating the rights of others. Job performance would tend to be poor and employment erratic. The disorder is associated with actions such as persistent criminality, sexual promiscuity or aggressive sexual behaviour and drug use. There would be evidence of conduct disorder in childhood and antisocial behaviour in mid-adolescence. People with this disorder typically have problems with the law and they may be deceitful, aggressive, impulsive, irresponsible and remorseless. Though correlated, psychopathy is not the same as behavioural histories of criminality or the categorical diagnosis of personality disorder (Meloy, 2007). Hare (2003) asserts that there is no effective treatment that is available for the disorder. In addition, the author reviewed treatment research concerning criminal psychopathic patients who have the most severe form of antisocial disorder and found that these individuals were generally viewed as untreatable by both clinical and legal professionals and they were frequently segregated and referred for treatment. Rice, Harris and Cormier (1992) reported in a 10-year controlled outcome study that psychopathic individuals treated in a prison therapeutic community showed significantly more recurrences of violent offences as compared to untreated psychopathic individuals, suggesting a negative treatment effect. As the severity of psychopathy increases in patients with antisocial personality disorder, anxiety and personal discomfort are likely to lessen patient's motivation to change. The incapacity to form an emotional bond is reported more among severely psychopathic criminals as compared to moderately psychopathic criminals. The former have been described as chronically emotionally detached. The severely psychopathic patient's internal representations of self are aggressive. The self is idealised, aggrandised and perceived as deserving of special treatment and favours. Others are not represented as independent, real and meaningful individuals deserving respect and empathy, but as objects to dominate and exploit (Meloy, 2007).

The DSM-IV-TR, APA (2005) stipulates that a diagnosis of borderline personality disorder includes: 1) a pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of idealisation and devaluation; 2) markedly and persistently unstable self-image or sense of self; 3) impulsivity in at least two areas that are potentially selfdamaging; 4) recurrent suicidal behaviour, gestures, threats or self-mutilating behaviour; 5) affective instability; 6) chronic feelings of emptiness; and 7) inappropriate, intense anger or difficulty controlling anger (American Psychiatric Association, 2005). Borderline personality disorder is characterised by an extraordinarily unstable mood and self-image. Individuals with this disorder may exhibit intense episodes of anger, depression or anxiety. Personality instability such as unstable emotionality, unstable interpersonal relationships, and unstable sense of self as well as impulsivity would be apparent. People with this disorder often have relationships in which they experience a desperate fear of abandonment and exhibit alternating extremes of positive and negative affect toward the other person. They may engage in a variety of reckless behaviours, including sexual risk-taking, substance abuse, self-mutilation and attempts at suicide. There may be evidence of cognitive problems as well, particularly regarding their physical and psychological sense of self. The disorder, which tends to occur more commonly in women, often appears in early adulthood and tends to fade by middle age (Millon & Davis, 1996, Parker et al., 2002). Sansone and Sansone (2009) argued that borderline personality disorder is overrepresented among inmates and that female criminals, who have a history of childhood sexual abuse, perpetration of impulsive, violent crimes, comorbid antisocial traits, and incarceration for domestic violence, appear to exhibit higher rates of borderline personality disorder.

Masterson (2000) noted that in the borderline disorder of the self, the self relates to the object by clinging, distancing or acting out. In addition, the author reported that the major psychic states of the borderline personality disorder involved the presence of self-representation of being the good passive child, an object-representation that offers approval for regressive and clinging behaviour, as well as the affect that links the two, depending on the perspective used to describe it as either feeling good, taken care of, loved, fed or as gratifying the wish for reunion. In this instance, the maternal object is reported to withdraw, be angry and critical of efforts towards separation individuation and as a result this would lead to abandonment depression. At this stage, developmental arrest occurs and the child feels the loss of the mother's support as loss of a part of him or herself. Masterson (2000) describes abandonment depression as including different affects such as homicidal rage, suicidal depression, panic helplessness, hopelessness, emptiness, void and guilt. The child feels responsible for the withdrawal of affection by the parental objects. The developmental arrest of the ego leads to defects in ego functions such as poor reality perception, impulse control, frustration tolerance, ego boundaries and primitive mechanisms of defence that would involve splitting, acting out, clinging, avoidance, denial, projection and projective identification (Masterson, 2000).

The causes of personality disorders are usually obscure and in many cases, difficult to study empirically. There is however, a constitutional and therefore hereditary element in determining personality characteristics generally and so in determining personality disorders as well. Psychological and environmental factors are considered important in causation. For example, many researchers believe there is a link between childhood sexual abuse and the development of borderline personality disorder or between harsh, inconsistent punishment in childhood and the development of antisocial personality disorder. However, it is extremely difficult to establish the validity of these links through systematic scientific inquiry. In addition, such environmental factors are not always associated with the disorders (Benjamin, 2002). Similarly Reiss and Roth (2000) emphasised that genetic characteristics of the child elicit certain parental responses that may in turn influence which genes are expressed and which are suppressed.

Reid et al., (2007) studied personality disorders and the potential for violence by looking at the many forms violence may take in people with personality disorders. Furthermore, these authors reported that violence itself was a basis for making the diagnosis of a personality disorder. Reid et al., (2007) stressed the importance of distinguishing between violent behaviour and hostile/aggressive behaviour. The researchers suggested that aggressive behaviour was not equivalent to violence itself and that the use of different sources of information when collecting violence history was important. The paucity of research about possible relationships between personality disorders and the risk of violence was noted in their study. The authors attributed this to the limitations in the general diagnostic nomenclature and the fact that the assessment of antisocial personality disorder was better refined than the assessment of other personality disorders.

Steadman et al., (2000) observed one year violence rates of 4.5 per cent in agency records of discharged mental patients in the McArthur Foundation study. Of note was that the same subjects showed six times higher rates of violence when three separate sources of information were queried. It became important to note that unless a history of violence was investigated from different sources, including history from the patient, collateral information from the family or

caregivers or previous admission records, such information might not be voluntarily offered to the clinician. Violence history is important in the diagnosis and understanding and treatment of a personality disorder.

Reid et al., (2007) reported that there was no single personality disorder that implied that all people with that diagnosis carried the same risk of violence. This suggests that factors which explain violent behaviour in one person do not suggest a similar risk in others with the same diagnosis. They reported that there were three key principles to consider in understanding the dynamics and characteristics of personality disorders. Firstly, they argued for the importance of looking at the fact that personality disorders were rarely ego dystonic. This indicated that those with personality disorders usually did not seek psychiatric help, and when they did it was often to alleviate symptoms rather than to address the personality disorder related issues. Referral to treatment was often from external sources such as an employer or spouse. Secondly, Reid et al., (2007) noted that most patients with violent behaviours in clinical situations involved comorbid conditions. They suggested that managing the co-existing conditions, which might include comorbid illness, substance abuse or environmental factors, could alleviate some violence potential. Thirdly, violence and violence risk were often associated with intoxication. Hence, the treatment of substance abuse might reduce violence risk but the presence of a personality disorder usually worsened rehabilitation prognosis. The authors therefore concluded that non-psychiatric interventions were often more important than interventions by mental health professionals in preventing or managing violence by those with personality disorder, and in protecting potential victims.

Bezenech et al., (1980) further reported that subjects in their study with the diagnosis of personality disorder were more likely to have committed thefts. Furthermore, it was reported that there were 24 crimes of theft committed by patients with personality disorder and only five committed by schizophrenic patients. The subjects with a diagnosis of personality disorder reported a history characterised by more broken homes due to parental death, divorce or abandonment than those with a diagnosis of psychosis. The authors further reported that personality disorder subjects recollected more of their parents being alcoholics and that they tended to manifest antisocial acts earlier in life in comparison to the psychotic group. There was evidence of repeated arrests, hospitalisations and re-admissions. The authors concluded from their study that mental patients were more likely to be arrested for assaultive and sometimes lethal behaviour compared to the general population.

McCabe (1975) compared personality traits in reactive psychosis with a group of non-psychotic siblings. He found that neurotic traits such as shyness, over-sensitivity and anxiety were more prevalent in the psychotic group. Similarly, Chavan and Kulhara (1988) found that cyclothymic and suspicious traits were more common in the premorbid personality of those with reactive psychosis than in controls. Koeningsberg, Kaplan, Gilmore and Cooper (1985) found that of patients with brief reactive psychosis, 18 per cent met the criteria for borderline personality disorder compared with one per cent of other psychotic patients in their sample. Jorgensen, Bennedsen, Christensen and Hyllested (1996) studied patients meeting the ICD10, WHO (1994) criteria for acute and transient psychotic disorder and found a high prevalence of personality disorder (63 per cent) after recovery from the psychotic episode. Jorgensen et al., (1996) did not find a relationship between acute and transient psychotic disorder with any specific personality disorder. Of note is the fact that, at one year follow-up after the psychotic episode, the rate of

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personality disorder had dropped to 29 per cent. Borderline personality disordered patients had an increased risk of developing unspecified psychotic episodes (Coid, 1996). Zanarini, Gunderson and Frankenburg (1990) looked at long-term functioning of borderline personality disordered patients. These authors found that odd and disturbed thinking was ubiquitous. Furthermore, they discovered that quasi-psychotic thought occurred on a long-term basis in 40 per cent of their subjects. They described quasi-psychotic symptoms as delusions and hallucinations that they judged to be transient.

Psychodynamic approaches place much emphasis on the importance of efforts to understand the effect of the trauma on the individual's personality to produce symptoms.

8.1.2 THE ROLE OF ORGANIC MENTAL DISORDERS AND AETIOLOGIES

Violence has been associated with organic disorders due to the secondary symptoms that may develop over time due to the disorder. It is noted that when most of the patients present with the organic disorders, they may notice themselves losing functioning or abilities they had mastered before, such as the ability to drive a car. This may lead to increased stresses experienced by the person, coupled with poor frustration tolerance and aggressive tendencies.

There is a long history of associating various forms of brain injury, brain dysfunction, and brain degeneration with impulsive and criminal behaviours (Lombroso 1911; Pick 1989). Clinical studies have reported increased levels of violent behaviour among patients with brain damage, particularly among those with injuries to the frontal lobes (Vogenthaler, 1987; Grafman, Schwab, Warden, Pridgen, Brown & Salazar, 1996; Nedopil 2000). The degenerative brain disorders of

old age may also be associated with aggressive and in some cases seriously violent behaviours that are common precipitants of placement in long-term care (Eastley & Wilcock 1997, Rabins, Mace & Lucas, 1982). Epilepsy has long been held to be associated with criminal behaviour. Gunn (1977) found epilepsy more frequently among prisoners. However, Toone (1990) argued that this might not reflect the influence of the brain instability on behaviour but more the social and personal instability on the brain such as trauma, early deprivation and in utero damage.

The organic category includes both those psychological or behavioural abnormalities that arise from structural disease of the brain and also those from brain dysfunction caused by disease outside the brain. These conditions differ from those of other mental illnesses in that they have a definite and ascertainable cause such as brain disease. However, the importance of the distinction (between organic and functional) has become less clear as research has demonstrated that brain abnormalities are associated with many psychiatric illnesses. Where possible, treatment has been aimed at both the symptoms and the underlying physical dysfunction in the brain.

Cole, Dendukuri, McCusker and Han (2003) stated that there are several types of psychiatric syndromes that clearly arise from organic brain disease, the chief among them being dementia and delirium. Dementia is defined as a gradual and progressive loss of intellectual abilities such as thinking, remembering, paying attention, judging, and perceiving, without an accompanying disturbance of consciousness. The syndrome may also be marked by the onset of personality changes. Dementia usually would manifest as a chronic condition that worsens over time. Delirium is described as a diffuse or generalised intellectual impairment marked by a clouded or confused state of consciousness, an inability to attend to one's surroundings, difficulty in

thinking coherently, a tendency to perceptual disturbances such as hallucinations, and difficulty in sleeping. Delirium would generally be an acute condition. Amnesia (a gross loss of recent memory and of time sense without other intellectual impairment) is another specific cognitive impairment associated with organic brain disease (DSM-IV-TR, APA, 2005). Steps toward the diagnosis of suspected organic disorders would include obtaining a full history of the patient followed by a detailed medical and psychiatric examination of the patient's mental state, with additional tests for particular functions as necessary. Detailed psychological testing may reveal more specific perceptual, memory or other disabilities.

Organic explanations of mental illness have usually been genetic, biochemical, neuropathological or a combination of these. Some mental illnesses have been linked to an abnormal balance of special chemicals in the brain, i.e. the neurotransmitters. Brennan et al., (2000) conducted a community study of crime and mental disorders arising specifically from brain injury and dysfunction. These researchers noted markedly elevated rates of offending particularly involving various forms of violence among these patients. They argued that the extent to which their findings were clouded by the role of substance abuse causing, or complicating, the organic brain syndromes was not clear.

Yeudall, Fromm-Auch and Davies (1982) stated that the finding that the highest risk for violent crime among the male cohort members was observed for those with organic brain syndromes was consistent with studies showing that violent behaviour was often a consequence of brain injury, as well as with studies of aggressive behaviour by patients with organic brain syndromes. Furthermore, these authors noted that this link between organic brain syndrome and violent behaviour has largely been ignored, probably because of the predominance of studies that evaluate relatively small samples of patients, short-term study design and a focus on schizophrenia. In addition, Brennan et al., (2000) reported that long-term epidemiological investigations allowed for the examination of organic brain syndrome in more detail, as it would be a disorder that would be more likely to occur in later stages of adulthood and that it might be misdiagnosed on first presentation. Furthermore, the authors noted that among women, however, organic brain syndrome only increased the risk of violence if it was comorbid with substance abuse or low socio-economic status.

Brower and Price (2001) reported that high rates of neuropsychiatric abnormalities among death row inmates, forensic psychiatric inpatients and other persons with histories of violence have led to assertions that evidence of brain-behavioural impairment may mitigate criminal conduct. Furthermore, they suggested that frontal lobe dysfunction in particular, has been invoked to explain the actions of some persons convicted of violent crimes, who apparently have failed to inhibit impulsive, trivially motivated or habitual aggression. In addition, they asserted that clinical observations have indicated that, although frontal lobe disorders may be linked to violence and criminal behaviour, this link was yet to be established. Brower et al., (2001) reported that case studies as far back as 1835 have reported the onset of antisocial personality traits after frontal lobe injury. The authors noted that such cases typically involved damage to the orbitofrontal cortex, which clinical observation has associated with poor impulse control, explosive aggressive outbursts, inappropriate verbal lewdness, jocularity and lack of interpersonal sensitivity. In addition, they stated that the gross dysregulation of affect and behaviour could occur while cognitive, motor and sensory functioning remained relatively intact. Brower et al., (2001) noted that the case reports of Eronen et al., (1996) and Lindqvist et al., (1990) have described a similar syndrome of "acquired sociopathy" in persons who had ventromedial prefrontal injury in adulthood. They argued that although showing minimal impairments on standard neuropsychological tests of intelligence and executive functions, these subjects displayed marked deficits in real life tasks demanding judgment, awareness of socially appropriate conduct and the capacity to assess future consequences. Persons with frontal network damage acquired before the age of eight years were also reported to have adult histories of recurrent impulsive, aggressive, and antisocial behaviour, associated with primary deficits in tests of executive function, poor abstract conceptual thinking, an inability to envision another person's subjective experience and immature moral reasoning. However, the authors noted one report that described two cases of improvement in impulsive and antisocial behaviour after frontal traumatic brain injury in adulthood.

Brennan et al., (2000) reported that large systematic studies on cohorts of war veterans with head injury tended to find an association between frontal lobe lesions and aggressive or antisocial behaviour, although the prevalence of actual violent crime seemed small. Myers and Dunner (1984) described personality changes in First World War and Second World War veterans with frontal lobe injuries and reported a consistent relationship between orbitofrontal lesions and subsequent antisocial behaviour. The authors reported five patients (3 per cent) in a sample of 144 British Second World War veterans with penetrating head injury and specific damage to the frontal lobes, who committed crimes and misdemeanours.

The Vietnam Head Injury Study (VHIS) initiated by Caveness, Meirowsky, Rish, Mohr, Kistler, Dillon and Weiss (1979) found that subjects with lesions limited to the frontal lobes tended to show more aggressive and violent behaviours compared with patients with non-frontal head injury and controls without head injury (Cote et al., 1992). The authors reported that 14 per cent of subjects with frontal lobe injury engaged in fights or damaged property, compared with 4 per cent of controls without head injury. The study also found a significant association between increased aggression and focal mediofrontal and orbitofrontal injury identified on brain CT. Angold and Costello (1993) found higher rates of antisocial behaviour such as stealing, physical assault and sexual comments or advances in patients with fronto-temporal dementia, even when compared with equally cognitively impaired patients with Alzheimer's disease.

Brennan et al., (2000) argued that the studies were retrospective and did not adequately control for known violence risk factors. The Vietnam Head Injury Study by Caveman et al., (1979), for example, did not report on prior history of aggression, substance misuse, stability of employment, socio-economic status, the presence of psychiatric symptoms or disorders other than depression, or criminal charges or other legal involvement. Without such data, it remains unclear how much of the increases in aggressive behaviour can be specifically attributed to focal frontal lobe injury.

Kandel and Freed (1989) conducted a comprehensive review of neuropsychological studies and found that evidence for the association between specifically violent criminal behaviour and frontal lobe dysfunction was weak at best. Swartz, Swanson, Hiday, Borum, Wagner and Burns (1998) conducted a study of 333 prisoners who were referred for evaluation after being charged with a violent crime specifically related to frontal EEG findings to habitual physical aggression

or explosive rages. The authors excluded subjects with clinical evidence of structural brain damage and found that 56.9 per cent of habitually aggressive subjects had EEG abnormalities (62.2 per cent in the frontal region), compared with 11.8 per cent of other subjects who had committed a single, isolated aggressive act.

Torrey (1994) reported neurological findings in 31 subjects, who were referred by attorneys in connection with claims of mitigation related to murder charges. The author found that 64.5 per cent showed some physical evidence of frontal dysfunction. Douglas, Cox and Webster (1999) found that a frontal lobe lesion was the best predictor of involvement in a violent episode among inpatients on a neuropsychiatric unit ahead of seizure disorder, a history of alcohol misuse, affective psychosis and number of inpatient days. Hodgins and Müller-Isberner (2004) conducted a prospective study of frontal lobe function and violence in psychiatric inpatients with mood and psychotic disorders and found no significant difference in frontal or other neurological findings between violent and non-violent patients. Brennan et al., (2000) reported that violent patients and that their behaviour seemed less responsive to environmental factors. Frontal executive dysfunction was significantly associated with a history of community violence, but did not predict inpatient assaults (Hodgins & Muller-Isberner, 2004).

These studies indicate that clinical signs of frontal lobe dysfunction are prevalent in populations of persons prone to violent and antisocial behaviour. Most of the subjects were either referred by attorneys or had known or suspected neuropsychiatric disorders, and so did not represent violent

criminals in general. Most studies were also based on small samples and lacked adequate controls for known violence risk factors. The small samples did not mirror the general population or even the larger criminal population. Brennan et al., (2000) reported that the studies that described persons charged with violent crimes tended to cite gross measures of brain function with low specificity and questionable clinical significance, while failing sufficiently to relate the clinical data to the specific aggressive behaviours in question. Furthermore, the bulk of research on violent and criminal behaviour points to multiple, interactive causal factors. Only a few studies attributed violent crime to frontal lobe dysfunction and adequately addressed concurrent psychosocial variables such as emotional stress, drug and alcohol misuse, physical and sexual abuse, family breakdown and poverty.

8.1.3 THE ROLE OF TRAUMATIC AND STRESSFUL LIFE EVENTS

Trauma is a very complex and relevant concept particularly in the South African context. During the years of apartheid, people were traumatised through being exposed to different kinds of violence, either as victims or perpetrators. It has also been noted that during the transition period in South Africa from the apartheid regime to a democratic political dispensation, there were high rates of violence, exposure to violence and people being traumatized or re-traumatized (Hamber, 1997). High levels of crime and violence in South Africa have had detrimental effects on the country. Crime is reported to be very high in South Africa. It is not surprising that violent crime is so very high in this country. This section explores the role and association of the traumatic and stressful life events on criminal and violent behaviour. Timmerman and Emmelkamp (2001) studied the relationship between traumatic experiences, dissociation and borderline personality pathology among male forensic patients and prisoners. They found that experiences of emotional

and sexual abuse were significantly more common among forensic patients than prisoners. They further indicated that the forensic patients reported more forms of traumatic events compared to prisoners. The prisoners reported more of the dissociative symptoms when compared to forensic patients. This study however was limited to examining a restricted range of personality pathology as it focused specifically on borderline personality disorder. Similarly, Abram and Teplin (1991) argued that though traumatic events were reported frequently among forensic patients, dissociative disorders were hardly diagnosed. The most common disorders found in both forensic patients and prisoners were personality disorders, particularly the dramatic, erratic cluster B personality disorders. Their study focused on forensic patients and criminal offenders in general.

Silk, Lee, Hill and Lohr (1995) noted that studies of the relationship between trauma and personality disorders have mainly focused on borderline personality disorder. A number of studies have demonstrated that there is a relationship between trauma and borderline personality disorder (Herman, Perry & Van der Kolk 1989; Zanarini & Frankenburg 1997; Paris, Zweig-Frank & Gudzer, 1994). However, the causal relationship between traumatic experiences and the development of the borderline personality disorder was challenged. Since borderline personality disordered patients are highly suggestible, the retrospective studies on traumatic experiences in these subjects might have enhanced the induction of false memories of traumatic events. Therefore, severe traumatic events were not exclusively observed to have occurred in the lives of borderline personality disorders, but they were also found in other personality disorders (Paris, 1997).

Monahan et al., (2001) identified childhood abuse experiences that affected subsequent violent behaviour and criminality among persons with mental disorder. They argued that mixed results have been found regarding the association of serious physical abuse in childhood and violence in adulthood among mental health patients. Monahan et al., (2001) found that the seriousness and frequency of prior childhood physical abuse was positively associated with an increased rate of post-discharge violence. This was criticised to a large extent due to the fact that this possible interactive effect of childhood abuse and adult victimisation was not tested in their study. Swanson et al., (2002) found that physical abuse occurring after the age of 16 years was significantly associated with violent behaviour in the previous year but only if victimisation also occurred before the age of 16. Rice et al., (1990) found that separation from parents before the age of 16 years predicted violent recidivism among mentally disordered offenders. In contrast, having lived with either parent until age 15 years was associated with a decreased rate of violence among psychiatric patients discharged from hospital. Parental socio-economic status was found to be negatively associated with violence among mentally disordered offenders (Rice et al., 1990) and with criminality among females with major mental disorder (Hodgins, 1992). Sirotic (2008) argued that these findings demonstrated the conditional nature of many of the relationships between specific childhood experiences and later violence and criminality.

Research has shown that indices of sexual and physical abuse were not related to any form of dissociative phenomena associated with borderline personality disorder. A diagnosis of borderline personality disorder but not childhood trauma accounted for the dissociative phenomena (Zweig-Franket al., 1994). However, Draijer and Langeland (1999) found a relationship between trauma and dissociation in personality disordered patients.

Mixed results have been found regarding the association between childhood sexual abuse and violence. Experiences of sexual abuse as a child were not found to be associated with violence among patient groups (Monahan et al., 2001; Swanson et al., 2002). However, Warren et al., (2002) found that sexual abuse was related to institutional violence among incarcerated mentally disordered female offenders. More research is required to examine the relationship of childhood sexual abuse and violence in adulthood by persons with mental disorder. The experience of being a victim of violence as an adult has also been found to be related to violence among mentally ill persons (Hughes, et al, 2012).

Spiegel and Cardena (1991) demonstrated in their study a strong association between traumatic events and dissociative symptoms. In inpatients, the researchers found that physical and/or sexual abuse as well as maternal neglect best predicted dissociative symptoms. They concluded that dissociation was associated with invasive sexual abuse, a high degree of physical abuse and chronic abuse beginning at early ages. However, their study was done only with female inpatients with trauma-related disorders and as a result, generalisation of findings to other populations would become difficult. Similarly, a review of case studies of 12 murderers with dissociative identity disorder revealed that all subjects suffered severe physical and sexual abuse as children (Lewis, Yeager, Swica, Pincus & Lewis, 1997). Alternatively, Stone (1994) found that a high proportion of prisoners and mentally disturbed offenders had experienced severe traumatic events including not only sexual and emotional abuse. However, this study focused particularly on the biographies of 42 serial murderers, which revealed that lower economic status, coming from a broken home, parental neglect, brutality, humiliation and/or alcoholism were the most common

traumatic factors. While physical and sexual abuse had a clear impact on attachment quality and style, this has not been investigated in forensic populations (Schore, 2003).

Siegel (2000) conducted a longitudinal study with 206 primarily low income, urban women whose abuse was documented at the time it occurred. During the interview, the women presented with average age of 25.5 years and had less than a high school level of education. In this study, 52 per cent of those interviewed were living in families receiving public assistance at the time they were abused and as adults. Furthermore, he found that sexual abuse occurred in the context of an environment rife with other forms of violence in both their personal life and community. He reported that the 35 per cent of the women reported having witnessed at least one incident in which someone was killed or seriously injured. In addition, 21 per cent reported witnessing violent behaviours at the age of 13 years. He also found that four in ten had a close family member who was murdered. Of those living with a couple they perceived as parental figures during their teenage years, 42 per cent witnessed one or both being hit, beaten, or use of weapon during an altercation. Siegel (2000) found that 28 per cent reported that they were hit or beaten by biological parents or parental figures more than one time per month. He further stated that 43 per cent received beatings or were hit by an object or by hand at least once. He reported that 70 per cent were sexually victimised on more than one occasion during their life with an average of nearly three lifetime victimisations involving different perpetrators. Siegel (2000) noted that the women reported stronger relationships with their mothers than their fathers while growing up.

Siegel (2000) found that 86 per cent of the women interviewed, reported engaging in physical fights at some time with 74 per cent revealing that they fought as teenagers and 44 per cent as an adult. In addition, 56 per cent showed that they had been in relationships where their partner had

used physical force against them and 61 per cent indicated that they had been in relationships where they used physical force against their partner. He found that of those who fought as adults, most only fought with their partners. Of the 50 women who fought as adults, 58 per cent stated using a weapon such as guns and knives and 80 per cent recorded having been in fights where injuries were inflicted. He concluded from his study that women who had witnessed murders, had close friends who were murdered, had been hit or beaten by a parental figure, were more likely to use physical aggression than those who had not. He further found that early fighting behaviour was also significantly related to subsequent aggression. Siegel (2000) found that teenage fighting was significantly related to adult fighting and a woman using force against her partner. Furthermore, he found a strong relationship between a woman's own aggression and being in a romantic relationship where force was used against her. In addition, he found that those who either fought or were involved in violent intimate relationships reported a significantly larger number of sexual victimisations.

Munoz, Panadero, Santos and Quiroga (2005) conducted a study on the role of stressful life events in homelessness. They defined homelessness as a crucial social and personal problem that included deterioration of physical and mental health. Their participants were over the age of 18 years and on the day before the interview had spent the night in a homeless shelter, emergency centre, street or any place that was considered unfit to inhabit such as a subway or car. Their study divided homelessness into three clusters. The first cluster was mainly characterised by economic problems with adequate overall functioning. This was regarded as the best functioning subgroup (Humphreys & Rosenheck, 1995). The second cluster was mainly characterised by alcohol abuse and significant health problems, which may be attributed to the longer duration of homelessness. The third cluster was regarded as the most alarming because of the low average age, multiple problems and rapid deterioration observed in many different areas. Munoz et al., (2005) suggested that these individuals had faced a large number of stressful life events, which were especially concentrated in childhood. These included violence, being thrown out or running away from home and parental drug use. The researchers argued that experiencing these stressful situations at such a young age appeared to be accompanied by important deterioration in physical and mental health. Furthermore, this subgroup presented with a large percentage of drug and alcohol use, as well as suicide attempts. The authors suggested that experiencing stressful situations as children was more likely to have made the individuals in this cluster vulnerable to homelessness. Homelessness and incarceration increase the risk of each other and are likely to be mediated by mental illness, substance abuse and disadvantageous socio-demographic characteristics (Greenberg & Rosenheck, 2008). Thus, they concluded that there was a need to design different interventions for each of these groups, adapted to their diverse needs. Although the study showed that being homeless increased the likelihood of criminal behaviour, it was also criticised for its definition of homelessness and inclusion of people that might have been on the street for one night and considered homeless.

Spangenberg and Pieterse (1995) conducted a study on the relationship between stressful life events and psychological status in Black South African women. They explored this using the Xhosa Life Event Scale (Swartz, Elk, Teggin & Gillis, 1983) which assesses mainly personal stressors and the Township Life Event Scale (Bluen & Odesnik, 1988) that assesses mainly the socio-political factors as well as the General Health Questionnaire (Goldberg, 1972). The authors reported that the personal, socio-economic and political environments of Black South Africans have been characterised by stressful conditions such as the breakdown of cultural, familial and social support systems, high crime rates, violence and harassment by conflicting political groups. Spangenberg et al., (1995) grouped stressful life events into three types. Firstly, there were the undesirable life changes, which they argued referred to stresses, like the loss of a loved one, loss of job or status or any acute stress. The second refers to the recurring life events, which Spangenberg et al., (1995) described as those stresses that occurred repeatedly and did not connote change. Thirdly, there were the continuous life events, to which the researchers referred to as chronic stressors or constant and ongoing stressful situations. The authors found significant positive correlations between psychological distress and undesirable life changes, recurring stressful events of a socio-political nature but not personal nature. Their results indicated that adverse socio-political conditions and the stress that accompanied them had a stronger negative effect than stressful events of a personal nature did on the women's mental health. The study looked at women only.

Silver and Teasdale (2005) conducted a study on mental disorder and violence with a special focus on stressful life events and impaired social support. They noted that much research has been done on the relationship between mental disorder and violence with more focus on the effects of clinical characteristics. Their study investigated the contribution that social factors, such as stressful life events and impaired social support might make to this association. Their results showed that there were significantly higher levels of stress and impaired social support among mentally disordered people who engaged in violence. Furthermore, they reported that the relationship between mental disorder and violence was substantially reduced when they controlled for stressful life events and impaired social support. Silver et al., (2005) reported that the relationship between major mental disorder including schizophrenia and major affective disorder and violence was attenuated by 32 per cent and that the relationship between substance abuse disorder and violence was attenuated by 34 per cent when stressful life events and impaired

social support were controlled statistically. Thus, they concluded that their results were consistent with the hypothesis that the relationship between mental disorder and violence was due, in part to the stress and support contexts to which individuals were exposed. Silver et al., (2005) found strong evidence that stressful life events and impaired social support were key factors affecting the social distribution of violence in the general population. Furthermore, they argued that stress-related literature in criminology emphasises that stressful life events and impaired social support influenced the likelihood of violence. Conversely, stress-related literature in mental health suggested that mental disorder may contribute to higher levels of stress and support impairment found in mentally disordered people who were more likely to commit violent crimes. These authors were criticised for controlling for stressful life events as it has been argued that subjective experiences of stress differ, and what would be stressful for one person would not necessarily be stressful for another.

Silver (2002) argued that people with serious mental disorders, particularly those experiencing delusional beliefs or hallucinations, or those with substance abuse disorders may introduce a variety of negative stimuli into their relationships with others. Hiday (1997) argued that such negative stimuli may result in conflicts as others attempt to exert social control by persuading the mentally disordered person to desist from disturbing behaviour or to comply with treatment. Silver et al., (2005) suggested that conflict associated with efforts at informal social control by caretakers might have inadvertently contributed to violence among mentally disordered people by eliciting negative emotions. In addition, they argued that this might be true particularly when social control efforts included involuntary treatment interventions such as forced hospitalisation or forced medications. Thus, they concluded that mental disorder might contribute to stress exposure by eliciting others' social control behaviours that the mentally disordered person

experienced as unwanted and stressful, thereby increasing the likelihood that violence would occur.

CHAPTER 9

9.1.1 THE ROLE OF ATTACHMENT

This section looks at violence against persons and likelihood to engage in criminal behaviour, as well as their association to different forms of attachment. It begins by describing the meaning of attachment, the types of attachment and how these may be linked to criminal behaviour.

Edwards (2002) defines attachment as an affectional bond or a special emotional relationship that involves an exchange of comfort, care and pleasure. An affectional bond is defined as persistent, involving a specific person who is not interchangeable with anyone else, is emotionally significant, and produces a desire to maintain proximity and in which involuntary separation results in distress. It further involves seeking security and comfort in the relationship with that person. The basic principle of attachment theory is that attachment relationships continue to be important throughout the lifespan (Ainsworth, 1982; Bowlby, 1977; Bretherton, 1992). Main and Goldwyn (1988) developed an Adult Attachment Interview that explores adults' representations of childhood attachment relations. On the basis of these interviews, which assessed the quality of the mother's interaction with her own child and the security of the child's attachment, mothers were classified into attachment groups that parallel the three childhood attachment patterns, including secure, dismissive and preoccupied attachment styles. This model did not include a category of people who might have a negative view of both self and others called fearful avoidant attachment style. The attachment relationship is considered "secure" if one achieves security, and "insecure" if one does not. A secure type of attachment provides children with sense of basic trust in their caregivers and safety in their environment. The secure attachment relationship develops when the caregiver or the attachment figure is sensitive and responsive. This promotes secure attachment in adulthood, which includes the development of appropriate interactions and the ability to recognise the importance of attachment (Bowlby & Ainsworth, 2002).

Insecure attachment has been associated with difficulties in mood regulation, empathy and behavioural problems (Schore, 2003). Dozier, Stovall and Albus (1999) suggested that the experience of early loss, separation and rejection by a parent or caregiver may convey the message that the child is unlovable and lead to an insecure model of attachment. Insecure attachment has been divided into three subtypes and includes avoidant, resistant or ambivalent and disorganised attachment styles. These are reported from controlled experiences based on the Strange Situation Experience research conducted by Ainsworth (1970) in which for example, children who show little distress when a parental figure left, but showed more interest in the toys or room upon parental figure's return, tended to present with avoidant attachment style. The child diagnosed with an avoidant attachment style would show physiological signs of anxiety and withdrawal from the caregiver as attempts to de-activate feelings of insecurity. An avoidant attachment style in children promotes dismissive attachment in adults. A dismissive attachment style disregards the importance of caregivers and affectionate feelings. The hypothesised strategy is to maintain distance in order to reduce the likelihood of emotional outbursts that might lead to rejection. In the dismissive attachment style, people downplay the importance of others, whom they have experienced as rejecting and as a result are able to maintain a high self-esteem. They have a positive self-model and a negative model of others. In addition, the dismissive attachment style individual avoids closeness because of his/her negative expectations of others. It is important to note that the sense of self-worth is defensively maintained through denying the value of close relationships. Because people with a dismissive attachment style may be less invested in other people, they are likely to be less amenable to forms of treatment that require an exploration of interpersonal interactions such as psychotherapy.

The fearful attachment style in adults tends to endorse avoidant and ambivalent tendencies. It is characterised by a negative view of self and others. The fearful attachment style refers to people who are highly dependent on others' acceptance and affirmation. However, due to their negative expectations of others, they avoid intimacy in order to avert the pain of loss or rejection. The dismissive and fearful styles of attachment are alike in that they both reflect the avoidance of intimacy. However, they differ with regards to the person's need for others' acceptance to maintain a positive self-regard (Bartholomew & Horowitz, 1991). Resistant or ambivalent attachment styles in children are described when the child appears preoccupied with the caregiver, but not soothed by the presence of the caregiver. Such caregivers are reported to be emotionally unavailable. Resistant or ambivalent attachment styles in children promote preoccupied attachment style in adults.

Preoccupied adult attachment styles are characterised by a person who is preoccupied with past relationship experiences and may appear angry. In the preoccupied attachment styles, people blame themselves for the perceived rejections by others and are thereby able to maintain a positive view of others. Preoccupied and fearful groups are similar in a sense that they both exhibit strong dependency on others to maintain a positive self-regard, but they differ in their readiness to become involved in close relationships. Whereas the preoccupied attachment style refers to reaching out to others in an attempt to fulfill dependency needs, the fearful attachment style includes the avoidance of closeness to minimise eventual disappointment. Disorganised attachment is described as one presenting in a disorganised manner with conflicting messages. The child may both cling to the caregiver seeking comfort and lean away from the caregiver at the same time. This kind of attachment promotes a disorganised attachment style in adults. The adult is observed to be frightened by memory of the past trauma and often describes experiences of dissociation (Byng-Hall, 1995; Bartholomew & Shaver, 1998).

Dozier, Cue and Barnett (1994) referred to clinicians as caregivers, suggesting a link between mothering and being in a treatment setting such as psychotherapy or that involves interpersonal relationship. They investigated the role of attachment organisation in treatment and studied the relationship between case managers' attachment organisation and interventions used with patients who had serious psychopathological disorders. These authors administered the Adult Attachment Interviews (Main, et al., 1988) to 27 patients and 18 case managers. The researchers used the Kobak's Q-set (1989), which yields scores for secure-insecure and preoccupied-dismissing attachment styles. In addition, case managers were interviewed once in a five month period with regards to the most recent interventions, specifically the depth of the intervention offered and if there was any attention given to dependency needs of the patient. They found that insecure managers attended more to dependency needs and that they intervened in greater depth with preoccupied patients compared to how they handled dismissive patients. In addition, the preoccupied managers intervened in greater depth compared to case managers who were found to present with a dismissive attachment style. Secure case managers did not attend to dependency needs and were more able to attend to the patients' underlying needs. Patients who presented with a dismissive attachment style presented as invulnerable and, a sense of being needy and dependent was found among the patients who presented with preoccupied attachment styles. Sensitive and more secured case managers were better able to respond to the underlying

neediness of the patients who were of both dismissive and preoccupied attachment styles. The insecure attachment style in the clinician is reported to evoke a strong pull towards the patient's attachment style and reacting accordingly (Dozier et al., 1994). The article stresses the importance of the quality of attachment in the treatment. This implies that poor attachment has serious negative implications in the outcome of treatment or forming relationships. Adshead (1998) suggests that attachment system is likely to be activated during a psychiatric disorder and that the clinician may be seen as a temporary attachment figure. Different attachment strategies may influence the doctor-patient relationship differently and, it is through these attachment styles that the outcome of illness management and health care utilisation may be influenced (Ma, 2007). Conradi and de Jonge (2009) studied recurrent depression and the role of attachment. These authors suggested that recurrent depression is associated with interpersonal dysfunctioning and that it stems from an insecure attachment style. In their prospective study over a three year period, the authors assessed depressed patients on a three monthly basis for severity of depression and attachment styles used. These authors found that anxious attachment patients reported worse depression in the prospective sample compared to the securely attached patients. These results were also confirmed in their retrospective study, where patients reported more prior depressive episodes, residual symptoms, longer use of antidepressants and worse social functioning abilities.

Ma (2006) reported that there is a clinical significant association between attachment insecurity and particular forms of psychopathology in general adult psychiatry. An understanding of associated attachment styles may enable a better understanding of the aetiology of psychiatric disorders, particularly from an interpersonal perspective. Psychopathology may develop from the frustration or maladaptive expression of attachment needs in circumstances where the attachment system is activated such as in cases of divorce or bereavement (Ma, 2006). Fossati, Feeney and Donati (2003) assessed 487 psychiatric inpatients with a range of diagnoses. The results indicated that the avoidance attachment style may be associated with avoidant, depressive, paranoid and schizotypal personality disorders. Similarly, anxious attachment styles may be associated with dependent, histrionic and borderline personality disorders.

Sroufe et al., (2005) reported that patterns of anxious attachment style in infancy are potential risk factors for later disturbance. Anxious attachment style is not perceived as a guarantee for the development of psychopathology in adult life but as an element that increases the probability of disturbance compared to the general population. Similarly, Sameroff (2000) reported that a history of secure attachment is not viewed as a determinant of healthy functioning but as a protective factor with regards to pathology. Bowlby (1977) suggested that the role of early attachment in psychopathology in the development outcomes is reliant on the entire history of experience including early care and current circumstances. Sroufe, Carlson, Levy and Egeland (1999) did a follow-up on children who showed troubled behaviour either in preschool years or middle childhood. In addition, their degree of recovery was forecast by a history of secure attachment and nurturing in the first two years of life. These researchers reported that those who had anxious histories continued to show high levels of problems in the next period or the adolescent stages and that those who had secure attachment histories became indistinguishable from the larger sample. Furthermore, avoidant and resistant infant attachment patterns are regarded as representing a moderate risk for disturbance. A disorganised attachment style in children on its own is considered a strong predictor of later disturbance (Sroufe et al., 2005). Similarly, Maunder and Hunter (2001) in their model suggest that insecure attachment style can lead to pathology through three mechanisms, namely, increased susceptibility to stress, an increased use of external regulators of affect and altered help-seeking behaviour. These may include a tendency to employ hyperactivation and deactivating strategies with regard to attachment behaviours to deal with difficult emotions. On the other hand, Shaver and Mikulincer (2002) suggested that individuals with a secure attachment style, tend to score low on both the anxiety and avoidance dimensions and are less threatened by potentially distressing information since they are able to experience, express, and verbally self-disclose emotions. However, avoidant individuals tend to employ deactivating attachment behavioural strategies, including defensive exclusion of painful thoughts and memories, segregation of mental systems, and dissociation between conscious and unconscious levels of responding. Furthermore, avoidant attachment style individuals exhibit defensive projection, fail to notice or acknowledge their own hostility, and anxiety. Individuals with an anxious attachment style tend to exhibit hyperactivating attachment behavioural strategies, including projective identification, ready access to painful memories, automatic spread of negative emotion from one remembered incident to another, and paradoxical cognitive closure in response to a positive affect induction. People with preoccupied attachment styles tend to struggle to regulate negative emotional memories and are often incoherently lost in negative emotional memories (Shaver et al., 2002).

According to Hirschi's (1969) social control theory, strong bonds with the larger society discourage engaging in antisocial and criminal behaviour. He argued that the strength of the social bonds rests on four elements, namely, attachment to others, commitment to, and involvement with, conventional activities, and belief in the value system of the larger society. In addition, he believed that attachment was the strongest of these elements. Without adequate attachment to others, Hirschi (1969) suggested that the other three elements are difficult to

achieve and that the individual is then placed at heightened risk for deviance or criminal behaviour. The researcher stated that strong attachments form the very foundation of the social bonds to society and that they are first developed at home through the early relationships the child forms with family and significant others. Siegel (2000) reported that child victims of sexual abuse might experience a profound disruption of the trust and beliefs held prior to the abuse, which in turn weakened their attachments to others. This effect would be pronounced if the abuse had been perpetrated by a family member and was prolonged. Behaviours that would include minimal parental emotional support, particularly from the mother figure and other forms of maltreatment such as abuse, neglect or other violent victimisation early in life were considered inimical to the development of strong attachments (Siegel, 2000). Alexander (1993) found that incest survivors had insecure attachments, and that a compromised sense of attachment among adults was related to a number of psychological disorders.

Waters, Hamilton and Weinfield (2000) conducted a longitudinal study, where children were assessed in the strange situation as infants and the Adult Attachment Interview was administered to them as young adults to determine the continuity of attachment patterns over time. The researchers found 80 per cent continuity between infant attachment patterns and adult attachment state of mind. In 20 per cent of the cases the attachment status changed over time (usually from insecure to secure, but sometimes the other way). The term "earned security" was used for those individuals who were either assessed in the strange situation as insecure and later in life were assessed as secure, or whose experiences in childhood would ordinarily have led to the expectation of an insecure state of mind but were assessed as secure on the Adult Attachment Interview (Roisman, Padron, Sroufe & Egeland, 2002). Waters et al., (2000) suggested that the category of "earned secure" was significant for clinicians, because it intimated that attachment

status was changeable. This suggested that the manner in which a child or adult regulated attachment distress could change over time. Roisman et al., (2002) found that when a child changed from insecure to secure, s/he was most likely to be influenced by a relationship. Research has proposed that some insecurely attached individuals can become securely attached as a result of a positive relationship with a significant adult or a positive psychotherapy experience.

Aaronson, Bender, Skodol and Gunderson (2006) conducted a study on the attachment styles of patients with borderline personality disorders and obsessive compulsive personality disorders. They argued that the intense, unstable interpersonal relationships characteristic of patients with borderline personality disorder were thought to represent insecure attachment. They administered the Reciprocal Attachment Questionnaire (West, Sheldon & Reiffer, 1987), which was a 43 item self-report instrument yielding five insecure dimensions and four insecure pattern categories to 50 patients diagnosed with borderline personality disorder and 40 patients diagnosed with obsessive compulsive personality disorder. The five dimensions included proximity seeking, separation protest, feared loss, the availability of the attachment figure and the use of the attachment figure. The patterns of attachment included angry withdrawal, compulsive caregiving, compulsive self-reliance, and compulsive care-seeking. Aaronson et al., (2006) found that there were significant differences in the patterns of attachment between the borderline personality disorder and obsessive compulsive personality disorder. The patients diagnosed with borderline personality disorder had high scores on patterns of angry-withdrawal and compulsive-care seeking, which they argued indicated anxious ambivalent attachment style. The individuals with borderline personality disorders also had high scores on lack of availability of attachment figures, feared loss of the attachment figure, lack of the use of attachment figure, and separation protest.

Melges and Swarts (1989) found that the high level of attachment insecurity of the borderline personality disorder led to enmeshed dependence on the attachment figure. Furthermore, these researchers argued that when anything interfered with that dependence, the borderline personality disordered individual regressed to behaviour patterns of angry-withdrawal. The patients with borderline personality disorder vacillated between compulsive care-seeking and angry withdrawal. These patients presented with a great desire for closeness and security from the attachment figure and as a result became enmeshed. This security seeking was often frustrated and would give rise to the rage seen in the angry-withdrawal pattern of behaviour (West, Keller & Links 1993).

9.1.2 THE ROLE OF DISSOCIATION

This section discusses the role of dissociation as a complex and relevant concept in understanding violence and criminal behaviour. It appears that there is a high rate of violence against persons in South Africa. It is apparent that when violence occurs, the victim is dehumanised or there is a dissociation process that may happen in order to disconnect from the very difficult feelings that come with attacking the other. It is possible splitting may occur as a defence. This section also explores issues relating to dissociation as a result of organic or memory disorders.

Dissociation is described as the process which occurs when one or more mental processes such as memory or identity are split off, or dissociated, from the rest of the psychological apparatus so that their function is lost, altered, or impaired (Jacoby, 1991). Although the DSM-IV-TR (2000)

reported no lifetime prevalence rates for the dissociative disorders, both dissociative identity disorder and depersonalisation disorder are more commonly diagnosed in women than in men.

Jacoby (1991) reported that the symptoms of dissociative disorders have often been regarded as the mental counterparts of the physical symptoms displayed in conversion disorders. Since dissociation may be an unconscious mental attempt to protect the individual from threatening impulses or repressed emotions, the conversion into physical symptoms and the dissociation of mental processes could be seen as related defence mechanisms arising in response to emotional conflict (Jacoby, 1991). Dissociative disorders were marked by a sudden, temporary alteration in the person's consciousness, sense of identity or motor behaviour (DSM-IV, 2005). There may be an apparent loss of memory of previous activities or important personal events, with amnesia for the episode itself after recovery. These are rare conditions, however, and it remains important to rule out organic causes first.

In dissociative amnesia, Cercy, Schretlen, Brandt and Rogers (1997) reported that there is a sudden loss of memory, where a person blocks out certain information, usually associated with a stressful or traumatic event, leaving him or her unable to remember important personal information. The memory loss includes gaps in memory for long periods of time or memories involving the traumatic event. The individual cannot remember anything about his/her previous life or even his/her name. The amnesia may be localised to a short period of time associated with a traumatic event or be selective, affecting the person's recall of some, but not all, of the events during a particular time. In psychogenic fugue the individual typically wanders away from home or from work and may assume a new identity, not remember his/her previous identity, and, upon

recovering, not recall the events that occurred during the fugue state. In many cases the disturbance lasts only a few hours or days and involves only limited travel. Severe stress is likely to trigger this disorder (Cercy et al., 1997).

Kluft (1996) reported that the dissociative identity disorder, previously called multiple personality disorder, was a rare and remarkable condition in which two or more distinct and independent personalities developed in a single individual. Each of these personalities inhabited the person's conscious awareness to the exclusion of the others at particular times. This disorder is thought to arise as a result of traumas suffered during childhood and is best treated by psychotherapy, which seeks to reunite the various personalities into a single, integrated personality (Kluft, 1996).

In depersonalisation, the body is perceived as being unreal, strange, distant or altered in quality. This state of self-estrangement may take the form of feeling machine-like, living in a dream, or not in control of one's actions. Derealisation, or feelings of unreality concerning objects outside oneself, often occurs at the same time. Depersonalisation may occur alone in neurotic persons but is more often associated with phobic, anxiety, or depressive symptoms. It most commonly occurs in younger women and may persist for many years. Patients can find the experience of depersonalisation intensely difficult to describe and often fear that others may think of them as insane. Organic conditions, especially temporal lobe epilepsy, should be excluded before making a diagnosis of neurosis when depersonalisation occurs. As with other neurotic syndromes, it is more common to see a number of different symptoms than depersonalisation as an isolated symptom. The causes of depersonalisation are obscure and there is no specific treatment for it.

When the symptom arises in the context of another psychiatric presentation, treatment is aimed at that condition (Kaplan et al., 2007).

Spitzer, Barnow, Freyberger and Grabe (2007) conducted a study on 133 patients with dissociation as a predictor of symptom-related treatment outcome in short-term inpatient psychotherapy. The researchers administered a symptom checklist, dissociative experience scale and an inventory of interpersonal problems at the beginning and end of the psychotherapy intervention. They found that 62.4 per cent of the participants were treatment responders and that 37.6 per cent did not show statistically significant change in their general psychopathology from pre-to-post-treatment assessment. Spitzer et al., (2007) found that comorbid Axis I disorders and substance use disorders did not emerge as predictors. Instead, they found that the presence of personality disorder, low baseline psychopathology and high pre-treatment dissociation all emerged as significant predictors. Furthermore, they discovered that dissociation had a negative impact on the treatment outcome. They argued that dissociative subjects dissociated as a response to negative emotions arising in psychotherapy thus leading to a less favourable outcome. In addition, they observed that dissociative subjects often have an insecure attachment style that further undermined the benefits of the therapeutic relationship. These researchers argued that there was growing evidence for the relationship between dissociative phenomena and interpersonal trauma, particularly childhood maltreatment including sexual and physical abuse, neglect and parental dysfunction. The authors reported that increased levels of dissociation have been associated with an insecure, especially disorganised attachment style, which further negatively affected the therapeutic alliance. Spitzer et al., (2007) noted that dissociation might not only indicate relational trauma but poor quality of object relationships. The study was

criticised for relying on self-report of patients describing their dissociative symptoms. The reports lacked collateral information and there was no screen used to assess patients for over-reporting or under-reporting due to other gains such as a longer stay in hospital or early discharge, and insight or lack of commitment to the treatment.

Liotti (2004) conducted a study looking at trauma, dissociation, and disorganised attachment referring to these as three inter-related factors. He looked at theoretical perspectives that suggested that disorganised attachment played a central role in trauma-related disorders. He proposed that the propensity to react to traumatic events with dissociation was related to disorganisation of early attachment and its developmental sequelae. Similarly, Hesse and Main (2000) found that there were similarities between dissociation, unresolved adult attachment interview responses and disorganised attachment. Dissociation was defined as a deficit of the integrative functions of consciousness, memory, identity or perception of the environment (DSM-IV, 2000).

Lyons-Ruth and Jacobvitz (1999) stated that the emergence, during administration of the adult attachment interview, of memories of traumatic losses of attachment figures, or of physical and sexual abuse suffered at the hand of attachment figures, was not a rare occurrence. They reported that in about 15 per cent of non-clinical interview lapses, poor reflective capacity and incoherence in the narratives of interview participants suggested that these traumatic experiences have not been resolved. In these cases, to think that dissociative processes related to the traumatic memories interfered with the report of a person's attachment history was, at the very least, an educated guess (Hesse et al., 2000; Liotti, 1992; Main et al., 1996).

Hesse and van IJzendoorn (1999) provided an empirical finding that people who described unresolved traumatic memories during the adult attachment interview also tended to rate high in a scale measuring the propensity toward absorption in day-dreaming, which they referred to as dissociative states of consciousness. Thus, they concluded that there was a link between attachment-related traumas, a tendency towards dissociative states, and dissociated mental operations during a task involving autobiographical memory.

Putman (1997) pointed out that there is little known about the aetiology and development of dissociation other than the presumed aetiologic role of trauma. He further noted that non-traumatised individuals sometimes demonstrated dissociation and that not all trauma survivors dissociated, suggesting that the causal trajectory between dissociation and trauma remains complex. Putman (1997) explored the role of various potential moderating variables including age, sex, culture, genetic factors and education/intelligence in the development of dissociation. Although moderating trends were found for some of these variables, existing research has not convincingly demonstrated that any of these variables significantly influenced dissociation.

Kluft (1984) noted that family environmental factors have been most consistently related to dissociation. These factors included inconsistent parenting or disciplining, a level of family risk and parental dissociation. Furthermore, these factors have been shown to be associated significantly with higher levels of dissociation in adulthood (Egeland & Susman-Stillman, 1996).

Barach (1991) was one of the first theorists to connect dissociation with attachment theory. He suggested that multiple personality disorder (now known as dissociative identity disorder) was a variant of an attachment disorder. He pointed out that individuals who had dissociative disorder

tended to demonstrate the extreme detachment, or emotional unresponsiveness, experienced by children faced with a loss of their primary caretaker, as described by Bowlby (1973). Barach (1991) further suggested that children of unresponsive caretakers were also likely to engage in dissociative or detached behaviours.

Liotti (2004) theorised that disorganised patterns of infant attachment behaviour were potential precursors to the development of dissociation later in life. He pointed out that there were parallels between infant disorganisation and dissociation since both phenomena reflected a pervasive lack of behavioural or mental integration. This primary failure of integration in infancy might have resulted in vulnerability to dissociative organisation of mental life in the developing child and grown adult. Liotti (2004) conceptualised this as a vulnerability model in which early dyadic processes led to a primary breakdown or lack of integration of a coherent sense of self. Liotti's model offered an alternative to the theory that the primary function and etiology of dissociation was as a defence against trauma. Although Liotti (2004) hypothesised that disorganised attachment patterns constituted an initial step in the developmental trajectories that left an individual vulnerable to developing dissociation in response to later experiences of trauma.

Bowlby (1982) first suggested that infants might internalise unintegrated internal working models of their relationships with primary caregivers and of themselves in relation to those caregivers. Main and Hesse (1990) further hypothesised that parents of disorganised infants might engage in frightened interactions with their children, thereby presenting the infant with the paradox that the parent was both a source of threat and a source of protection. Under these paradoxical conditions, during times of stress when the attachment system was activated, contradictory internal working models of self and other become evident. These seemingly incompatible models of the parent as a source of fear and a source of protection from fear were similar to Barach's (1991) model of an abusive parent causing a child to be faced with the incompatible notion that his/her parent was his/her protector and his/her persecutor.

Main et al., (1990) theorised that when the parent appeared frightened in their interactions with the infant, the infant might infer that there was something threatening in the environment that should be feared. The perceived environmental threat would lead a securely attached infant to approach his/her parent for protection, and a frightened parent might communicate apprehension to the child. Under these conditions, the infant might sense the helplessness of the parent in the face of threat and thus demonstrate conflict about approaching the parent for protection by displaying contradictory simultaneous or sequential approach-avoidance behaviours typical of disorganised detachment. Alternatively, the parent's frightened stance might cause the child to infer that the parent was frightened, again leading to conflict in approaching and further threatening an already frightened parent. Lyons-Ruth and Jacobvitz (1999) demonstrated that parental withdrawal from the infant's attachment at times of infant arousal was also associated with infant disorganisation, whether or not the parent's behaviour was directly frightened or frightening to the infant. Thus, the infant's internalisation of contradictory models of the self as frightened or threatening and of the parent as hostile or helpless/withdrawing could be conceptualised in terms of contradictory models that generated incompatible behavioural and mental tendencies. This primary lack of integration around basic strategies for seeking comfort and protection under stress might confer vulnerability to dissociative processes later in life (Liotti, 2004).

Liotti (2004) speculated that there were three pathways that infants with disorganised attachment might take towards or away from the development of dissociative symptomatology. In the first pathway, there was no further trauma and interactions with the parent become less fear imbued and more consistent over the childhood years. Regardless of whether this consistency is positive or negative, Liotti (2004) posited that this would result in the child's eventually choosing one of the available incompatible working models of attachment relationships and developing in accordance with that working model. The second pathway, in which parent-child interactions continued to be inconsistent and contradictory, but in which the child did not encounter severe trauma, would lead to infrequent dissociation during times of extreme stress. In this scenario, although the child is viewed as vulnerable to the development of dissociative symptoms, there would be no sufficient environmental stressors to potentiate this vulnerability, leaving the child asymptomatic or displaying only mild or fleeting dissociative symptoms. In the third pathway, the disorganised/disorientated infant is predisposed to dissociation, has ongoing severe stressors and vulnerability is potentiated. The child experiences continued reinforcement of increasingly unintegrated simultaneous/sequential contradictory internal working models of self-other relatedness and repetitive severe trauma. The child is likely to move toward the development of dissociative identity disorder (Liotti, 2004).

Liotti's (2004) model of early difficulties in achieving an integrated set of behavioural and mental responses to fear or threat offered a strong hypothesis for why it is that some people exposed to trauma develop dissociation, whereas others do not. This model suggested that disorganised attachment negatively impacted on the onset of early individually based processes of mental integration that became the basis for later dissociation. Although Liotti's (2004) model set forth the notion that infant disorganisation laid the groundwork and acted as a key precursor

for the development of dissociation, experiences of significant trauma remained an important and necessary factor in this diathesis-stress model. However, further research is indicated in the area to validate the link between disorganised attachment, experiences of dissociation and dissociative disorder.

9.1.3 TYPES OF CRIMES

In this section, violent crimes are distinguished from non-violent crimes, using the code of human violation. For example, housebreaking, though it has some form of physical force, destructiveness and / or vandalism, it would be regarded as non-violent crime in the present study. This is because it does not involve human violation or physical violence against a human being. Non-violent crimes will be coded as crimes that do not include human violation such as theft or property crimes. Theft that involves weapons or any form of human violation or threat will be regarded as a violent crime. In addition, the impact of crime on the individual and society is discussed.

Three categories of crime are considered in forensic research and these include violent crimes, non-violent crimes and other crimes. A violent crime is a crime in which the offender uses or threatens to use violent force upon the victim. This would involve crimes where violence is the objective, such as murder, as well as crimes in which violence is the means to an end, such as cases of robbery. Violent crime includes all offences involving the use or threat of physical violence, for example, murder, non-negligent manslaughter, aggravated assault (with or without a weapon or by means likely to produce death or bodily harm), rape, robbery, unlawful threat and molestation. Non-violent crimes are those crimes that do not involve the use of any force against

another person. Examples of such crimes would involve larceny or theft, fraud, and white collar crimes as well as drug and alcohol-related crimes (Wikstrom, 1989).

It has been noted that during the transition period in South Africa from the apartheid regime to a democratic political dispensation, there were high rates of violent crime. High levels of crime and violence in South Africa have had detrimental effects on the country. Interpol (1997) reported that among 110 countries, South Africa had the highest per capita rates of murder and rape, the second highest rate of robbery and violent theft, and was ranked fourth in terms of serious assault and sexual offences. Similarly, the United Nations Office on Drugs and Crime (2006) conducted a survey for the period 1998-2000 and found that South Africa ranked second for assault and murder and first for rapes in a data set of 60 countries. It is also noted that victims of violence often know the perpetrator. The South African Victims of Crime Survey (2012) reported that 60 per cent of assault victims and 63 per cent of sexual offences victims knew the offender by name. There are many hypotheses regarding why South Africa is considered a violent country. These would include issues such as a history of poverty and inequality, the development of a culture of violence, rapid urbanisation, a weak criminal justice system, the ubiquitous availability of firearms, high levels of alcohol abuse and gender inequality. It appears that a history of apartheid and poverty are key issues in the context of crime in South Africa. It has been established that issues such as hunger and unemployment do not cause crime in and of themselves but that in conjunction with other socio-political and cultural factors, they may lead to increased levels of crime. Research has shown that crime rates are higher in the cities than rural areas. There is evidence that cities are characterised by problems of overcrowding, unemployment and competition for the same resources and these factors are often associated with increased crime rates. There is a lack of trust in the judicial system in South Africa as a result of inefficiency, long waiting periods and high rates of corruption.

Research has shown that firearms are easily accessible in South Africa and this may contribute to the high rates of murders and serious injuries related to crime. Prospective criminals would expect their victims to be armed and may attempt to defend themselves and as a result, the perpetrators are likely to be highly armed and willing to use force. The SAPS Central Firearms Registry (2004) reported that 3.5 million South Africans legally own 4.2 million firearms, and similar figures are estimated for illegal weapons.

Gender inequality is a complex factor that also increases the risks of gender-specific crimes, especially violence against women. The results of such high rates of crimes are that the difficult emotions that come with being the victim of crime are displaced on to less threatening environments, thus leading to a cycle of violence. For example, it would appear that being assaulted or violated may lead to feelings of rage, helplessness, powerlessness and aggression. The question becomes how such feelings are expressed. It is possible that aggression may become displaced onto less threatening environments such as domestic settings or the abuse of employees. Alternatively, such feelings may also be worked through and dealt with effectively. It appears that the psychological treatment of the victims of crime has become of paramount importance.

Property crimes may occur with or without violence. In some instances, burglaries occur without violence. While property offences that do not involve violence constitute the majority of offences reported to the police, roughly 73 per cent of sentenced prisoners (81 364 out of 112 197) are

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serving sentences for sexual offences or other crimes of violence (CSVR, 2007). Roughly 63 per cent of awaiting-trial or unsentenced prisoners are facing charges relating to violent or sexual offences. The fact that the vast majority of people in prison are there in relation to sexual and other violent offences reflects the far greater seriousness with which these crimes are viewed as opposed to property offences that do not involve violence. Incarceration also tends to be viewed as more appropriate for people in these categories on the grounds that they are believed to be dangerous (CSVR, 2007).

The negative impact of violent crime may include death, physical injury or pain, psychological harm and loss of property by the victim. Violent crime also has other impacts that extend beyond the immediate impact on the victim, including contributing to fear of crime, distrust, emigration and undermining the potential for investment.

Violent crime may result in physical injury to the victim, requiring medical attention. The nature of the injury experienced may be affected by the type of crime committed, the weapons used in the attack, the number of perpetrators involved, the degree of resistance offered by the victim, and the location of the attack. The South African Law Commission (2001) conducted an analysis of 532 closed dockets for cases of serious violent crime in the municipal areas of Randburg (n=197) and Mamelodi (n=325). Their results indicated that the most serious injury was a bullet wound in 6 per cent of cases, a stab wound in 13 per cent of cases, burns in 4 per cent of cases, and cuts and bruises in 27 per cent. In roughly 46 per cent of cases the victims sustained no injury. In Randburg the percentage of victims without injury was 33 per cent. The study, however, underrepresented the number of murder victims and it is therefore likely that the study underrepresented the number of

gun injuries, as guns, when used, are more likely than other weapons to be fatal. The study should therefore best be seen as providing a rough injury profile for non-fatal (and non-sexual) incidents of serious violent crime (CSVR, 2007).

Guns were used in a very high proportion of incidents, including 58 per cent of incidents in Randburg and 39 per cent in Mamelodi. A large majority of cases (73 per cent) where guns were used (though presumably not discharged) by the perpetrators were aggravated robberies (including hijackings), but only 1 per cent of aggravated robberies led to firearm injuries, with 92 per cent of aggravated robberies resulting in no injury and 6 per cent resulting in cuts and bruises.

Zedner (2002) cited various studies indicating that violent and sexual crimes may result in longer-term effects of emotional and psychological damage. In one study, 75 per cent of victims of assault, robbery or rape interviewed two and a half years after the incident, reported that they were still affected at the time of the interview. Rape victims and victims of sexual abuse during childhood have been found to suffer persistent effects many years afterwards. Rape victims may experience profound distress for several months after the crime, and may continue to experience problems with fear, anxiety, and interpersonal functioning for years after the event. Similarly, a study of sexual violence in men's prisons indicates that victims may suffer low self-esteem, isolation, shame and emotional pain, and other consequences, including a disposition to violence in retribution against former victimisers, or to silence others who know about their victimisation history. Most incidents of victimisation result in some form of psychological distress, which, in its more severe form, may manifest as post-traumatic stress disorder (PTSD), a clinical syndrome characterised by anxiety, depression, loss of control, guilt, sleep disturbance and obsessive dwelling on the crime. Victims may also experience self-blame, flashbacks and re-experiencing

of the incident, accompanied by shame for not noticing warning signals of the impending crime. They may also experience social withdrawal and avoidance of places associated with the crime incident (DSM-IV-TR, 2005). Witnessing these violent crimes may mean profound trauma and bereavement for families and other relationships. The impact of crime is complex for multiple victimisations (Zedner, 2002).

Stone (2006) reported that criminal behaviour and violence can also be financially costly for the victims. The people may have to pay for medical or psychological treatments, replace property and take time off work to report the crime itself. Burton, du Plessis, Leggett, Louw, Mistry and van Vuuren (2004) based on the National Victims of Crime Survey (2003) reported that 73 per cent of the victims of crime indicated that they changed their behaviour after an incident of crime to avoid further victimisation, including avoiding certain locations, becoming more vigilant, or making adaptations to their properties to make these more secure. Seventeen per cent reported that they had stopped going out. Violence has consequences that extend beyond the immediate impact on the victims and their families or people in their nuclear social circle. Perceptions around crime and feelings of safety can affect the way individuals behave, socialise and interact with the world (Burton et al., 2004). Crime and fear of victimisation also turn certain areas into no-go zones. They also disrupt the functioning of institutions such as schools, and feed into the fear and distrust of others. As a result, this reinforces the existing fissures in society and contributes to reduced social contact between people of different groups. Given that South Africa has placed an emphasis on economic growth through the formal and informal economies, the impact of crime on business is particularly concerning. Small, medium and micro-sized enterprises are one avenue for creating employment, necessary for tackling the poverty and inequality associated with high crime levels in South Africa (Stone, 2006). Twenty six per cent of respondents to the 2003 National Victims of Crime Survey, reported that crime has stopped them from starting or investing in a home business (Burton et al., 2004).

Irish-Quobosheane (2007) reported that for a small portion of people, violent crime is highly lucrative. While this contributes to the perception that most criminals can pursue their activities with impunity, this is not entirely correct. Research suggests that most criminals are likely to be unsuccessful in conventional terms. As a result, offenders typically persist in spite of low incomes, insecurity, fragile relationships, physical injury and spells of imprisonment. Smith (2002) reported that people who readily resort to violence in ordinary interpersonal relationships are unlikely to be able to maintain satisfying or rewarding relationships with others. Low-level gang members would be perpetually compelled to act out elaborate rituals of deference or face the risk of violence from their peers.

Dissel (2005) investigated and explored how the offenders' violent acts affected the perpetrators. She argued that, while some of the violent offenders may be immune to any awareness of the consequences of their actions, others may be deeply traumatised by acts of victimisation that they have suffered as well as the ones they were responsible for. High levels of trauma, mental illness and psychosis has been reported among offenders, particularly those who were reported to have been active members of a gang. Recurring nightmares and other symptoms of PTSD have been reported among offenders (Standing, 2006).

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CHAPTER 10

10.1.1 RATIONALE FOR THE STUDY

The research reviewed thus far has examined the relationship between offending behaviours and mental disorders and has focused almost exclusively on determining associations at particular moments in time in specified and often highly selected groups. There are many unanswered questions, which remain difficult to measure in scientific research. The analyses employed in most studies only occasionally progressed beyond the bivariate to the multivariate, in which potential confounding variables such as social class, prior criminal history, employment status and relationship status were entered into the various analyses. There has been little research conducted with multivariate analysis. The issues of social background, cultural context, immediate precipitants and the constructions placed on the target behaviours both by the actors and those defining the deviance seemed to be largely ignored. There has been evidence of difficulties with sample selections as well as small sample size, thus limiting most of the results and rendering them less generalisable to the community at large. The different studies showed that there are different ways of ascertaining criminality including self-report, record reviews, conviction rates, charge rates and arrests rates. Furthermore, there has been little consistency about what constituted violence, particularly in cases that were not officially reported. The statistics and records used are often incomplete, with under-reporting being a serious issue, thus limiting a true reflection of the crimes committed or the actual violence that has taken place. In addition, the literature revealed that ways of ascertainment of mental disorder differed. For example, major mental disorders often included affective disorders, schizophrenia and a wide range of psychotic disorders. The diagnostics often depended on less than ideal instruments or clinical evaluations. Most of the studies relied on records that used outdated diagnostic categories. In some instances, patients were selected on the basis of being on an antipsychotic medication but without a formal diagnosis on their actual records. In South Africa, the post-apartheid period has been associated with a significant increase in violent crime. It appears that many South Africans have lived through major traumatic experiences. There are multiple factors such as poverty, unemployment, exposure to personal and political violence, education and socio-economic disadvantage that appear to contribute to criminal behaviour. The question remains unanswered as to why some individuals from the same context and country and similar traumatic experiences do not resort to crime. It appears that further research on the combination of environmental and individual factors is important in the understanding of these issues.

Attachment has been shown to play a large role in the development of the individual. Secure attachment to a loving and consistent primary caregiver has been shown to act as a protective factor against emotional and social maladjustment later in life. Similarly, insecure attachment has been regarded as a risk for later development in life. Trauma is one aspect that may appear to threaten the development of a well secured individual. With many South Africans having experienced violent acts against them, the high increase in traumatic experiences, and also high rates of divorce and broken homes, it would seem that attempts to stop the cycle would involve investing in attachment bonds early on with the parents. It seems that prevention models and future research would need to focus more on encouraging families to bond with children and building stable loving families in an attempt to promote balanced development later in life, a reduction of aggressive or violent acts and criminal behaviour as well promoting mental health.

The present study is motivated by the lack of research done in this area, particularly in the South African context. There are no studies comparing forensic patients and criminal offenders and the

various factors that may lead to criminal behaviour and how these may present in terms of the type and / or nature of offences committed. There is a growing emphasis on observation of forensic patients and assessment for fitness or competency to stand trial. The present study aims to improve the understanding of mentally ill patients and investigate possible differences in types of crimes committed by forensic patients compared to criminal offenders. The present study also aims to compare the personality profile, use of dissociation, attachment styles and the types of crimes committed. The final aim is to inform future treatment interventions in forensic settings and offer possible prevention models for the community setting.

10.1.12 OBJECTIVE

The objective of the study is to explore the relationship between the stressful life events, personality profiles, dissociation, attachment styles and the types of crimes committed among mentally ill offenders and criminal offenders.

10.1.3 HYPOTHESES

The hypotheses of the study are:

- (a). There are no differences in stressful life events or experiences between mentally ill offenders and criminal offenders.
- (b). There are no differences in dissociative experiences among mentally ill offenders and criminal offenders.
- (c). There are no differences in personality profile / pathology between mentally ill offenders and criminal offenders.

- (d). There are no differences in the types of crimes committed by criminal offenders or mentally ill offenders.
- (e). There are no differences in attachment styles between mentally ill offenders and criminal offenders.

10.1.4 METHODS SECTION

10.1.4.1 PARTICIPANTS

The sample under study consisted of 200 participants (156 males, 54 females). The sample was made up of 100 mentally ill offenders from Sterkfontein Hospital (96 males, four females) and 100 criminal offenders from Johannesburg Correctional Services in the Johannesburg Area (50 males from Leuwkop Prison, 50 females from Sun City Prison). Participants' ages ranged from 18 years to 60 years (M = 33.65, SD = 7.41) for criminal offenders and (M = 36.69, SD = 6.04) for mentally ill offenders. Participants selected in the study had at the least a Grade Eight level of education. Participants were selected through convenience sampling, where consecutive cases admitted to Sterkfontein Hospital and Johannesburg Correctional Services were used. The sample consisted of those who were either admitted in the hospital or in the prison at the time of data collection. Participants included in the study were stable and on medication and not psychotic at the time of the interview as assessed by the psychiatrist in the ward.

10.1.4.2 MEASURES

Data was collected through the use of questionnaires. All measures were in English. These included firstly the Biographical Detail Scale, which assesses age, gender, race, marital status and socio-economic status, (John and Catherine MacAthur, 1999).

The Stressful Life Events 43 item scale (Holmes & Rahe, 1967) was used, where participants were asked to tick stressful life experiences that had occurred to them in the previous year. Turner, Wheaton and Lloyd (1995) argued that the causal relationship of stressful life events leading to mental disorder became apparent when life stress was measured using acute life events. Eitle and Turner (2002) in their study of the effects of the exposure to community violence and young adult crime, revealed that distal vicarious experiences including witnessing domestic violence, witnessing community violence and receiving traumatic news were each significant predictors of criminal behaviour. This was consistent with evidence that individuals who had experienced traumas in childhood tended to experience greater levels of adversities later in life (Turner et al., 1995). Thus, in the current study, lifetime traumas including childhood traumas were assessed. The Stressful Life Events Screening 15 item questionnaire was used to measure traumatic incidents. It was designed to identify Criterion A events associated with posttraumatic stress disorder as outlined by DSM-IV and to minimise reporting of threshold events. Criterion A events would include exposure to a traumatic event in which the person has experienced an event that involves actual or threatened death or serious injury, or a threat to the physical integrity of the person or others. The person's response involved intense fear, helplessness, or horror. It showed good test-retest reliability, with a median kappa of 0.73, adequate convergent validity with a median kappa of 0 .64, and good discrimination between Criterion A and non-Criterion A events in the DSM-IV (Goodman, Corcoran, Turner, Yuan & Green, 1998). Non-Criterion A events would include re-experienced trauma, persistent avoidance of stimuli associated with trauma and symptoms of increased arousal, symptoms lasting for a month and causing significant impairment in social, occupational and other important areas of functioning. Respondents were asked to indicate whether a range of traumatic events had occurred at any time in their life including early childhood.

The Dissociative Experience 28 item Scale (Bernstein & Putman, 1986) is a scale in which participants had to estimate on a scale of one to a hundred where they fell in terms of the dissociative experiences. Bernstein and Putman (1986) reported good test-retest and split-half reliability of the scale. They further found that the scale correlations were significant, indicative of good internal consistency and construct validity.

The Minnesota Multiphasic Personality Inventory-II, a 567 true-or-false questionnaire (Butcher, Dahlstrom, Graham, Tellegen & Kaemmer, 1989), was also utilised to ascertain personality profiles. It is also described as a reliable measure of personality profile and was used to assess major symptoms of social and personal maladjustment. Research has shown that it is a widely used personality assessment tool in correctional and related forensic settings (Butcher, Dahlstrom, Graham, Tellegen & Kaemmer, 1989).

The Attachment Styles 40 item Questionnaire (Hazan & Shaver, 1987) was used to measure styles of attachment. Participants were asked to indicate how much they agreed or disagreed with statements using a likert rating of a six point scale (1 = totally disagree to 6 = totally agree, see Appendix 4A) (Hazan & Shaver, 1987). Research has shown that the scale has high levels of internal consistency and good test-retest reliability. The pattern of association with previous measures of attachment styles, the predictable patterns of correlations with measures of family functioning and personality and the lack of correlation with Lie scores indicated good validity of the scale (Feeney, Noller & Hanrahan, 1994).

The types of crimes committed by both groups under study and diagnoses for the clinical offenders were obtained from records. The types of crimes were categorised as violent crimes, non-violent crimes and "other" (Wikstrom, 1989).

10.1.4.3 RESEARCH DESIGN

The study attempted to ascertain whether there were any associations between the variables of the study (stressful life events, personality profiles, traumatic experiences, personality structures, dissociative experiences, attachment styles and crimes committed) and whether predictions could be made for future assessments and treatment strategies. The study featured a between-subjects post-test only design. It was a quasi-experimental design with diagnosis (clinical vs criminal offenders) as the between participants factor. Independent variables were offenders (clinical offenders) and types of crimes (violent or non-violent crimes). The dependent variables were stressful life events (low risk to illness, moderate risk to illness and high risk to illness), personality profile, dissociative symptoms (low levels of dissociation and high levels of dissociation) and attachment styles (secure, fearful avoidant, ambivalent and preoccupies). The confounding variables were substance abuse, medication and comorbidity.

10.1.4.4 STATISTICAL SECTION

10.1.4.4.1 PLANNED ANALYSIS

The first planned analysis was aimed at obtaining descriptive statistics pertaining to biographical details of criminal vs clinical offenders, which included, gender, race, marital status and socio-economic status.

The second planned analysis was a discriminant function analysis. Discriminant function analysis performs basically the same functions as multiple linear regression by predicting an outcome. However, multiple regression analysis is limited to situations in which the dependent variable is an interval variable. Discriminant function analysis on the other hand is used when one or more dependent variables are nominally categorical (e.g. membership of a political party, religious affiliation or racial grouping), but with the predictor variables measured on an interval scale (e.g. level of stress, ranging from low, through moderate, high, to very high). It is the multivariate analysis of variance (MANOVA) reversed (Poulsen & French, 2004). In other words, MANOVA is used in cases where the predictor variables occur on an interval scale and the dependent variables are nominally categorical.

In this thesis, discriminant function analysis was first used to test the differences between criminal and clinical offenders on the basis of personality profiles, stressful life events and dissociative experiences. It was also used to test the differences between criminal and clinical offenders on the basis of different attachment styles. In discriminant analysis, the assumption is that covariance matrices are equivalent. Box M tests the null hypothesis that the covariance matrices do not differ between groups formed by the dependent variables. This test should not be significant in order to retain the null hypothesis that the groups do not differ. This means that the log determinant should be equal. This test is looking for non-significant M to show similarity and the lack of significant differences.

Thirdly, among the planned analysis was a Chi-Square Test for Independence. The Chi-Square test for independence is used to determine whether an association exists between two nominally

categorical variables. It was used to ascertain the relationship between Offender Type (Criminal vs Clinical offenders) and Offence Committed (Violent vs Non-Violent vs "Other").

The standardised canonical discriminant function coefficients were performed in the current study. The standardised canonical discriminant function coefficients are like the standardised coefficients (betas) produced in multiple regressions. The sign indicates the direction of the relationship. The coefficients indicate the partial contribution of each variable to the discriminate function controlling for all other variables in the equation. The coefficients indicate each independent variable's unique contribution to the discriminate function and therefore provide information on the relative importance of each independent variable (Rencher, 1992).

The Structure Matrix provides another way of indicating the relative importance of the predictors of criminal behaviour. This was also performed. The structure matrix correlations are widely used in research because they are considered to be more accurate than the standardised canonical discriminant coefficients (Rencher, 1992). The structure matrix table shows the correlations of each variable with each discriminant function. These pearson coefficients serve as factor loadings in factor analysis. By identifying the largest loadings for each discriminant function, the researcher gains insight into how to name the function. Generally, as with factor analysis loadings, 0.30 is seen as the cut-off between important and less important variables.

10.1.4.4.2 PROCEDURE

The mentally ill offenders from Sterkfontein Specialist Psychiatric Hospital were those that had a formal diagnosis of mental illness based on the DSM-IV criteria recorded in the patient's file.

They were not actively psychotic at the time of research but were under treatment or receiving medication. Those who were actively psychotic and who could not consent to the study were not included. Mentally ill offenders were drawn from closed forensic wards in Sterkfontein Specialist Psychiatric Hospital and those who were on leave of absence and attending outpatient follow up treatment at Lilian Ngoyi Clinic. The criminal offenders were taken from the Johannesburg Correctional Services area (Sun City and Leuwkop Prisons) that were divided into maximum (long sentences including life imprisonment), medium (sentences of 10 years or less) and juvenile sections. The mentally ill offenders were diagnosed by a psychiatrist consultant or psychiatric registrar under the supervision of the psychiatrist consultant. The DSM-IV diagnostic system was used at the time of diagnosis and collection of data. All the participants agreed to participate in the study.

The research proposal was presented to the Postgraduate Committee at the University of Witwatersrand, Faculty of Health Sciences for their approval and the permission to conduct the study. Ethical clearance was obtained from the Committee for Research on Human Subjects of the medical school of the University of Witwatersrand (Protocol number: M070444). Permission was obtained from the Department of Health Directorate and Directorate of Correctional Services and participants were asked to give written consent to participate in the study in the information letters given and explained to them. Participants who were not willing to participate were not included in the study. Questionnaires were coded to ensure confidentiality. Respondents were asked to request the researcher's assistance if they needed clarification on any items. The researcher ensured that consistent explanations were given to participants, i.e. the same explanation given to one participant was given to all other participants. There were no guards or treating team present

during the time when prisoners or patients were completing the questionnaires. Participation was on a voluntary basis. It was stressed that the survey was strictly anonymous, confidential and that it had no bearing on a person's discharge from hospital or early release from prison. The participants were informed that there would be no financial benefits from the study. Completion of questionnaire required one hour thirty minutes to two hours. Participants were observed for levels of distress and debriefing was offered to those who required it. The staff of both institutions were also made aware to continually watch participants were referred for further intervention.

CHAPTER 11

11.1 RESULTS OF THE STUDY

The results of the study indicate that the mean age was 33.65 years (SD = 7.41) for criminal offenders and 36.69 years (SD = 6.04) for clinical offenders. The results further indicate that there were four female participants in the clinical offenders group compared with 50 females in the criminal group. This was significant. Table 1 indicates that there were 72 single criminal offenders and 80 single clinical offenders who participated in the study, and this is significant. Eleven per cent of the criminal offenders (n=11) reported that they were married as compared to 6 per cent (n=6) of the clinical offenders. Two per cent (n=2) of the criminal offenders and 1 per cent (n=1) of the clinical offenders were widowed. Eight per cent (n=8) of the clinical offenders were separated compared to 2 per cent (n=2) of criminal offenders. Table 1 indicates that 3 per cent (n=3) of criminal offenders and 4 per cent of clinical offenders reported being divorced. The results further indicate that 93 per cent (n=93) criminal offenders and 75 per cent (n=75) clinical offenders who participated in the study were Black.

The results further indicate that 13 per cent (n=13) of the clinical offenders were Coloured compared to 1 per cent (n=1) of the criminal offenders. The results indicate that 11 per cent (n=11) of clinical offenders were White compared to 2 per cent (n=2) of criminal offenders. The differences in terms of race were not significant.

Sixty five per cent (n=65) of criminal offenders and 85 per cent (n=85) of clinical offenders reported that they had no tertiary education. This was statistically significant. Thirty five per cent (n=35) of the criminal offenders reported that they had tertiary qualification as compared to 15

per cent (n=15) of the clinical offenders. Eighty three per cent (n=83) of clinical offenders committed violent crimes as compared to 61 per cent (n=61) of the criminal offenders and this was significant.

| Demographic Variable | | Criminal | Clinical |
|---------------------------------|-------------|--------------|--------------|
| | | Offenders | Offenders |
| N | | 100 | 100 |
| Age Mean (Standard Deviation of | f Age) | 33.65 (7.41) | 36.69 (6.04) |
| Gender | Female | 50 | 4 |
| | Male | 50 | 96 |
| Marital Status | Married | 11 | 6 |
| | Single | 72 | 80 |
| | Widowed | 2 | 1 |
| | Separated | 2 | 8 |
| | Divorced | 3 | 4 |
| Race | Black | 93 | 75 |
| | Coloured | 2 | 13 |
| | Indian | 3 | 1 |
| | White | 2 | 11 |
| Tertiary Qualification | No | 65 | 85 |
| | Yes | 35 | 15 |
| Offence Committed | Violent | 61 | 83 |
| | Non-Violent | 21 | 15 |
| | Other | 18 | 2 |
| First Time in Prison/Hospital | No | 23 | 45 |
| | Yes | 77 | 55 |
| Previous Offence | Violent | 13 | 1 |
| | Non-Violent | 16 | 4 |
| | Other | 0 | 0 |
| Have a Home | No | 91 | 22 |
| | Yes | 9 | 78 |

Table 1: Biographical Details of the Participants

Twenty one per cent (n=2) of criminal offenders were reported to have committed non-violent crimes as compared to 15 per cent (n=15) of clinical offenders. Eighteen per cent (n=18) of criminal offenders committed "other" types of crimes compared with only 2 per cent (n=2) of clinical offenders. Table 1 indicates that 77 per cent (n=77) of the criminal offenders were incarcerated for the first time and 55 per cent (n=55) of clinical offenders were admitted for the first time. Forty five per cent (n=45) of the clinical offenders reported that it was not their first time in the hospital compared to twenty three per cent (n=23) of the criminal offenders who reported that it was not their first time in prison. In terms of recidivism, 13 per cent (n=13) of the criminal offenders and this was significant. Sixteen per cent (n=16) of the criminal offenders had previously committed a non-violent crime compared to 4 per cent (n=4) in the clinical offenders.

Ninety one per cent (n=91) of the criminal offenders and 22 per cent (n=22) of the clinical offenders reported that they had no home. Seventy eight per cent (n=78) of the clinical offenders reported that they had a home compared to 9 per cent (n=9) of the criminal offenders.

Table 2: Clinical vs Criminal Offenders' Mean Scores on the Social Re-adjustment Rating Scale (SRRS), Minnesota Multiphasic Personality Inventory-II (MMPI-II), and the Dissociative Experience Scale (DES)

| | Criminal Offenders | Clinical Offenders | Total |
|--------|--------------------|--------------------|---------------|
| | N=100 | N=100 | M SD |
| SRRS | 5.04 (3.46) | 6.49 (4.66) | 5.79 (4.16) |
| MMP1-2 | 3.08 (0.30) | 3.20 (0.32) | 3.15 (0.30) |
| DES | 34.76 (20.70) | 28.15 (25.02) | 31.37 (23.17) |

Table 2 shows how discriminant function analysis was used to ascertain whether the Social Readjustment Rating Scale, Minnesota Multiphasic Personality Inventory-2, and the Dissociative Experience Scale scores discriminated between Criminal vs Clinical Offenders. Table 2 indicates that scores on the Dissociation Experience Scale was higher among criminal offenders than clinical offenders. The results further indicate that higher levels of stress were reported among clinical offenders (M=6.49) than criminal offenders (M=5.04). It is important to note that stress levels reported above are those that had happened in the previous year from the date of administration of the questionnaire. Table 3a: Stressful Life Events Screening Questionnaire: Sexual Trauma between Criminal vsClinical Offenders

| | Sexual Trauma (per cent) | | (per cent) |
|--------------------|--------------------------|-----|------------|
| | No | Yes | Total |
| Criminal Offenders | 87% | 13% | 100 |
| Clinical Offenders | 82% | 18% | 100 |

Table 3a indicates past traumas that were assessed separately using the Stressful life Events Screening Questionnaire. The results on the Stressful Life Events Screening Questionnaire revealed that a high percentage of the respondents had not experienced past childhood sexual traumas including touching or made to touch private parts and forced to have sex. Table 3a shows a significantly small percentage who reported sexual trauma events in childhood (13 per cent (n=13) in criminal offenders and 18 per cent (n=18) in clinical offenders).

Table 3b: Stressful Life Events Screening Questionnaire: Physical Abuse as a Child betweenCriminal vs Clinical Offender

| | Physical Abuse as a Child (per cent) | | (per cent) |
|--------------------|--------------------------------------|------|------------|
| | No | Yes | Total |
| Criminal Offenders | 51% | 49*% | 100% |
| Clinical Offenders | 40% | 60*% | 100% |
| *p=0.09 | | | |

Table 3b shows the reported physical abuse as a child, which included being slapped repeatedly, beaten, otherwise attacked or harmed by a parent. The results indicate that 60 per cent (n=60) of clinical offenders reported physical abuse as a child by a parent as compared to 49 per cent (n=49) of criminal offenders. When the Chi-Square test of independence was performed on this variable, it was marginally significant, with a p value of 0.09. This suggests that being physically abused as a child by a parent was a determinant of whether one is a criminal or clinical offender. These results further indicate a high prevalence of physical abuse as a child by a caregiver in both the clinical and criminal offender groups. Although physical abuse as a child may not be a strong determinant of whether one is a criminal offender to general criminal behaviour, regardless of whether this was in the context of mentally ill offenders or criminal offenders.

 Table 3c: Stressful Life Events Screening Questionnaire: Physical Abuse as an Adult as a

 determinant between Criminal vs Clinical Offenders

| | Physical Abuse as an Adult (per cent) | | (per cent) |
|--------------------|---------------------------------------|------|------------|
| | No | Yes | Total |
| Criminal Offenders | 59% | 41*% | 100% |
| Clinical Offenders | 68% | 32*% | 100% |

*p=0.12

Table 3c shows physical abuse reported as an adult, that would include being kicked, beaten, slapped around or physically harmed by a romantic partner, date, family member, stranger or

anyone else was reported in 41 per cent (n=41) of criminal offenders and in 32 per cent (n=32) of clinical offenders. The Chi-Square test of independence with type of offender (criminal vs clinical offender) shows that the relationship is not significant, with a p value of 0.12. The overall rate of physical abuse as an adult is high, however it does not discriminate between the two groups under study. It could be a strong contributor to criminal behaviour in general.

Table 3d: Stressful Life Events Screening Questionnaire: Psychological Abuse by a Parent,Romantic Partner, or Family Member

| | Psychologically Abused (per cent) | | (per cent) |
|--------------------|-----------------------------------|------|------------|
| | No | Yes | Total |
| Criminal Offenders | 50% | 50*% | 100% |
| Clinical Offenders | 49% | 41*% | 100% |

*p=0.22

Table 3d shows psychological abuse by a parent, romantic partner or family member, which would include being ridiculed and ignored or devalued. The results indicate that 50 per cent (n=50) of the criminal offenders reported that they were repeatedly ridiculed by a romantic partner, parent or family member as compared to 41 per cent (n=41) for clinical offenders. The Chi-Square test of independence with type of offender (criminal vs clinical offender) shows that the relationship is not significant, with a *p value of* 0.22. The psychological abuse by a parent, romantic partner or family member is high in both the criminal and clinical offender groups, but

it is not a discriminator factor. Psychological abuse could be a contributing factor in general criminal behaviour.

Table 3e: Stressful Life Events Screening Questionnaire: Physical Force Suffered in Robbery orMugging

| | Physical Force (per cent) | | (per cent) |
|--------------------|---------------------------|------|------------|
| | No | Yes | Total |
| Criminal Offenders | 62% | 38*% | 100% |
| Clinical Offenders | 55% | 45*% | 100% |

*p=0.12

Table 3e shows the percentage of the participants who reported physical force suffered during a robbery or mugging. The results indicate that 38 per cent (n=38) of the criminal offenders reported that they had experienced physical force used against them during a robbery or mugging as compared to 45 per cent (n=45) for clinical offenders. The Chi-Square test of independence with type of offender (criminal vs clinical offender) shows that the relationship is not significant, with a *p* value of 0.12. The reported trauma is high on both groups, but does not discriminate between criminal or clinical offender groups.

Table 3f: Stressful Life Events Screening Questionnaire: Violent Death of a very Close FamilyMember Died Violently (Accident, Homicide, or Suicide)

| | Violent Death (per cent) | | (per cent) |
|--------------------|--------------------------|--------|------------|
| | No | Yes | Total |
| Criminal Offenders | 68.4% | 31.6*% | 100% |
| Clinical Offenders | 62% | 38*% | 100% |

*p=0.28

Table 3f shows the percentage of participants that experienced the death of a close family member through accident, homicide or suicide. The results indicate that 31.6 per cent (n=31.6) of the criminal offenders reported that they had experienced their close family member dying violently through an accident, homicide or suicide as compared to 38 per cent (n=38) for clinical offenders. The Chi-Square test of independence with type of offender (criminal vs clinical offender) shows that the relationship is not significant, with a *p* value of 0.28.

Table3g: Stressful Life Events Screening Questionnaire: Threatened with a Weapon

| | Threatened with Knife or Gun (per cent) | | (per cent) |
|--------------------|---|------|------------|
| | No | Yes | Total |
| Criminal Offenders | 61% | 39*% | 100% |
| Clinical Offenders | 59% | 41*% | 100% |
| *p=0.21 | | | |

Table 3g shows the percentage of participants who reported having been threatened with a weapon such as a knife or gun. The results indicate that 39 per cent (n=39) of the criminal offenders reported that they had been threatened with a gun or knife at some point in their life as compared to 41 per cent (n=41) for clinical offenders. The Chi-Square test of independence with type of offender (criminal vs clinical offender) shows that the relationship is not significant, with a *p value of* 0.21. This suggests that exposure to threats with a knife or gun is not a strong discriminant of whether one is a criminal or clinical offender. Exposure to violence reported in the current study by both criminal and clinical offender groups remains high, but is not a discriminating factor. This could be attributed to the fact that exposure to violence is a significant contributor to general criminal behaviour.

Table 3h: Stressful Life Events Screening Questionnaire: Witnessed Someone Killed or SeriouslyInjured

| | Witnessing Someone I Injured (per cent) | (per cent) | |
|--------------------|--|------------|-------|
| | No | Yes | Total |
| Criminal Offenders | 59% | 40*% | 99**% |
| Clinical Offenders | 61% | 39*% | 100% |

*p=0.22 ** 1 missing.

Table 3h shows the percentages of participants who reported witnessing someone being killed or seriously injured. The results indicate that 40 per cent (n=40) of the criminal offenders reported that they had witnessed someone being killed or seriously injured as compared to 39 per cent

(n=39) for clinical offenders. The Chi-Square test of independence with type of offender (criminal vs clinical offender) shows that the relationship is not significant, with a *p value of* 0.22. This suggests that witnessing someone being killed or seriously injured was not a strong indicator of whether one is a criminal or clinical offender. Exposure to violence is high in both criminal and clinical offender groups, but is not a discriminating factor. This could be attributed to the fact that exposure to violence is a significant contributor to general criminal behaviour.

 Table 4: Significant Mean Differences between Minnesota Multiphasic Personality Inventory-II

 Measures

| | Criminal | Clinical |
|----------------------|-------------|-------------|
| | N=100 | N=100 |
| | M SD | M SD |
| Depression | 3.50 (0.50) | 3.69 (0.46) |
| Health | 3.62 (0.49) | 3.74 (0.44) |
| Anger | 3.00 (0.85) | 3.35 (0.63) |
| Low Self-Esteem | 3.29 (0.62) | 3.51 (0.65) |
| Antisocial Practices | 3.75 (0.44) | 3.57 (0.50) |
| Family Problems | 3.43 (0.72) | 3.69 (0.55) |
| Psychasthenia | 2.82 (1.21) | 3.40 (1.31) |
| | | |

Table 4 shows the mean differences between the clinical offenders and criminal offenders on the MMPI-II measure. The results indicate that clinical offenders reported more psychological problems than did criminal offenders. The psychological problems reported would include depression, which involves feelings of hopelessness, helplessness, sadness, fatigue, unworthiness,

inadequacy and pessimism, accompanied by a preoccupation with guilt, death and suicide. The results indicate that higher rates of depression were reported among clinical offenders (M=3.69) as compared to criminal offenders (M=3.50). Table 4 shows that clinical offenders were more preoccupied with physical health problems (M=3.745) as compared to criminal offenders (M=3.62). The results indicate that clinical offenders (M=3.35) reported more feelings of anger and hostility towards their environment compared to criminal offenders (M=3.00). Low self-esteem, which includes poor self-concept, was reported more by clinical offenders (M=3.51) than criminal offenders (M=3.29). The results indicate that criminal offenders (M=3.75) reported more family problems reported among clinical offenders (M=3.69) compared among criminal offenders (M=3.43) and this was statistically significant. Psychasthenia, which encompasses obsessive worries and exaggerated fears, was reported more among criminal offenders (M=3.40) than among clinical offenders (M=2.82). The chi square test of independence indicates that these variables were all statistically significant with a p value < 0.05.

Table 5: The significant p values of the Minnesota Multiphasic Personality Inventory-II measures andtheir effect on both criminal and clinical offenders

| | Sum of Sc | luares df | Mean S | quare F | р | |
|---------------------|----------------|-----------|--------|---------|-------|------|
| Depression | Between Groups | 1.322 | 1 | 1.322 | 5.653 | .019 |
| | Within Groups | 32.278 | 138 | .234 | | |
| | Total | 33.600 | 139 | | | |
| Health | Between Groups | .613 | 1 | .613 | 2.860 | .093 |
| | Within Groups | 29.559 | 138 | .214 | | |
| | Total | 30.171 | 139 | | | |
| Anger | Between Groups | 4.216 | 1 | 4.216 | 7.624 | .007 |
| | Within Groups | 76.319 | 138 | .553 | | |
| | Total | 80.536 | 139 | | | |
| Antisocial Practice | Between Groups | 1.140 | 1 | 1.140 | 5.175 | .024 |
| | Within Groups | 30.403 | 138 | .220 | | |
| | Total | 31.543 | 139 | | | |
| Low Self-Esteem | Between Groups | 1.689 | 1 | 1.689 | 4.155 | .043 |
| | Within Groups | 56.104 | 138 | .407 | | |
| | Total | 57.793 | 139 | | | |
| Family Problems | Between Groups | 2.511 | 1 | 2.511 | 6.199 | .014 |
| | Within Groups | 55.910 | 138 | .405 | | |
| Psychasthenia | Between Groups | 11.734 | 1 | 11.734 | 7.387 | .007 |
| | Within Groups | 219.202 | 138 | 1.588 | | |
| | Total | 230.936 | 139 | | | |

One Way Analyses Of Variance (ANOVAs) between groups were conducted to test the effect of type of offender (Clinical vs Criminal) on the Minnesota Multiphasic Personality Inventory-II measures. The results suggest that the clinical offenders were more likely to have significant effects on Depression, Health (marginally significant), Anger, Low Self-Esteem, Antisocial Practices, Family Problems and Psychasthenia with p values < 0.05.

Table 6a: MMPI-II: Variable Response Inconsistency Scale: Criminal Offenders vs ClinicalOffenders

| | Frequenc | У | Per cent | | Valid Pe | er cent | | ative Per |
|----------------------------|----------|------|----------|-----|----------|---------|------|-----------|
| | CD | CI | CD | CI | CD | CI | | c |
| | CR. | CL. | CR. | CL. | CR. | CL. | CR. | CL. |
| Invalid & | 31 | 32 | 31% | 32% | 31.0 | 32.0 | 31.0 | 32.0 |
| unintepretable | | | | | | | | |
| Valid | 32 | 32.0 | 32% | 32% | 32.0 | 32.0 | 63.0 | 64.0 |
| Valid with inconsistencies | 37 | 36 | 37% | 36% | 37.0 | 36.0 | | |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Criminal Offender=CR and Clinical Offender=CL

Table 6a indicates that 31 per cent (n=31) of criminal and 32 per cent (n=32) clinical offenders had high scores on variable response inconsistency scale on the MMPI-II, suggesting that the participants responded to items in an inconsistent manner, thus making the profiles invalid and uninterpretable. Invalid and uninterpretable data was not included in the analysis.

| | Frequence | сy | Per cent | | Valid Pe | er cent | Cumu | lative Per |
|----------------------------|-----------|-----|----------|-----|----------|---------|------|------------|
| | | | | | | | C | cent |
| | CR. | CL. | CR. | CL. | CR. | CL. | CR. | CL. |
| Invalid & | 32 | 28 | 32% | 28% | 32.0 | 28.0 | 32.0 | 28.0 |
| unintepretable | | | | | | | | |
| Valid | 32 | 28 | 34% | 28% | 34.0 | 28.0 | 66.0 | 56.0 |
| Valid with inconsistencies | 34 | 44 | 34% | 44% | 34.0 | 44.0 | | |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Criminal Offenders=CR and Clinical Offenders=CL

Table 6b indicates that 32 per cent (n=32) of criminal and 28 per cent (n=28) of clinical offenders had high scores on True Response Inconsistency on the MMPI-II, suggesting that the participants responded positively to two items that contradict each other about self, thus leading to inconsistent responses and making the profile invalid and uninterpretable. The differences between criminal offenders and clinical offenders were not statistically significant.

Table 7a: MMPI-II: Infrequent responding scale on Criminal vs Clinical Offenders

| | Frequency | Per cent | Valid Per | Cumulative |
|----------|-----------|----------|-----------|------------|
| | | | cent | Per cent |
| Criminal | 45 | 45% | 45.0 | 45.0 |
| Clinical | 39 | 39% | 39.0 | 39.0 |

Table 7a indicates infrequent responding in 45 per cent (n=45) for criminal offenders and 39 per cent (n=39) for clinical offenders. This indicates a tendency to be defended among criminal offenders with regards to consistent responding in the MMPI-II measure. The differences between the criminal offenders and clinical offenders were not statistically significant.

Table 7b: MMPI-II: Defensive mindset scale on Criminal vs Clinical Offenders

| | Frequency | Per cent | Valid Per | Cumulative |
|----------|-----------|----------|-----------|------------|
| | | | cent | Per cent |
| Criminal | 14 | 14% | 14.0 | 14.0 |
| Clinical | 0 | 0.0 | 0.0 | 0.0 |

Table 7b indicates that defensive mindset was evident in 14 per cent (n=14) of criminal offenders but was not evident in the clinical offenders.

| Table 7c: MMPI-II: Fak | ting bad scale on Crimit | nal vs Clinical Offenders |
|------------------------|--------------------------|---------------------------|
|------------------------|--------------------------|---------------------------|

| | Frequency | Per cent | Valid Per | Cumulative |
|----------|-----------|----------|-----------|------------|
| | | | cent | Per cent |
| Criminal | 54 | 54% | 54.0 | 54.0 |
| Clinical | 48 | 48% | 48.0 | 48.0 |

Table 7c indicates that a tendency to be defensive and faking bad occurred in 54 per cent (n=54) of the criminal offenders and in 48 per cent (n=48) of the clinical offenders. The differences between the criminal and clinical offenders were not statistically significant.

| Diagnosis | Frequency | Per cent | Valid Per cent | Cumulative Per |
|-----------------|-----------|----------|----------------|----------------|
| | | | | cent |
| Schizophrenia | 42 | 42% | 42.0 | 42.0 |
| Bipolar Mood | 27 | 27% | 27.0 | 27.0 |
| Disorder | | | | |
| Mood and | 13 | 13% | 13.0 | 13.0 |
| Psychosis | | | | |
| Secondary to | | | | |
| Substance Abuse | | | | |
| Mood and | 12 | 12% | 12.0 | 12.0 |
| Psychosis | | | | |
| Secondary to | | | | |
| TLE | | | | |
| Schizoaffective | 6 | 6% | 6.0 | 6.0 |
| Disorder | | | | |

Table 8: Frequency of different psychiatric diagnoses among clinical offenders

Table 8 shows that 42 per cent (n=42) of clinical offenders who participated in the current study were diagnosed with schizophrenia, (7 of which were of paranoid subtype). Twenty seven per cent (n=27) of the clinical offenders were diagnosed with bipolar mood disorder. Thirteen per cent (n=13) of the clinical offenders were diagnosed with mood and psychosis secondary to substance abuse. Twelve per cent (n=12) of the clinical offenders were diagnosed with mood and psychosis secondary to temporal lobe epilepsy. Six per cent (n=6) of the clinical offenders were diagnosed with paranoid schizophrenia.

Table 8a: Comorbid diagnoses

| Comorbid Diagnoses | Percentages per cent |
|---------------------------------|----------------------|
| Borderline IQ | 35% |
| Borderline Personality Disorder | 4% |
| Substance Abuse | 24% |
| Depression | 1% |
| Non-Compliance | 33% |
| Antisocial Personality Disorder | 7% |
| Paranoid Personality Disorder | 2 % |

Table 8a shows that 35 per cent (n=35) of clinical offenders who participated in the current study had a comorbid diagnosis of borderline IQ. Four per cent (n=4) of the clinical offenders had comorbidity diagnosis of borderline personality disorder. Twenty four per cent (n=24) of the

clinical offenders had a comorbid diagnosis of substance abuse. One per cent (n=1) of the clinical offenders were diagnosed with depression as the comorbid diagnosis. Thirty three per cent (n=33) of the clinical offenders received a comorbid diagnosis of non-compliance. Seven per cent (n=7) of the clinical offenders were diagnosed with antisocial personality disorder as a comorbid diagnosis. Two per cent (n=2) received a comorbid diagnosis of paranoid personality disorder.

| Sentence | Male | Female | Violent Crime | Non-Violent |
|---------------|------|--------|---------------|-------------|
| | | | | Crime |
| 0-1 year | 0.0 | 15.0 | 4.0 | 11.0 |
| 1.1-2.4 years | 0.0 | 12.0 | 2.0 | 10.0 |
| 2.5 – 5 years | 0.0 | 22.0 | 5.0 | 17.0 |
| 6 – 10 years | 1.0 | 1.0 | 1.0 | 1.0 |
| 11 – 30 years | 39.0 | 0.0 | 39.0 | 0.0 |
| 31 - 41 years | 4.0 | 0.0 | 4.0 | 0.0 |
| Life Sentence | 6.0 | 0.0 | 6.0 | 0.0 |

Table 9: Sentences of Criminal Offenders: Males and Females

Table 9 shows the sentences for male and female criminal offenders. The results show that sentences between zero to one year (0 to 1 year) were given to 15 per cent (n=15) of female criminal offenders. Of the 15 per cent of female offenders (n=15), 4 per cent (n=4) were as a result of violent crimes and 11 per cent (n=11) non-violent crimes. The one year one month to

two years four months sentence category (1.1 to 2.4 years) was imposed on 12 per cent (n=12) of female offenders, where 2 per cent (n=2) were of a violent nature and 10 per cent (n=10) non-violent crimes. Twenty two per cent (n=22) of female criminal offenders received sentences of two years five months to five years (2.5 to 5years), where 5 per cent (n=5) were violent crimes and 17 per cent (n=17) non-violent crimes. One per cent (n=1) of both male and female criminal offenders were given sentences between six years to 10 years (6 to 10 years), where by one was of violent nature and the other non-violent crime.

A sentence of 11 years to 30 years (11 to 30 years) was reported by 39 per cent (n=39) of the male criminal offenders, of which all of them were as a result of violent crimes. There were no female criminal offenders sentenced in this category. Four per cent (n=4) of the male criminal offenders had a sentence of 31 years to 41 years and they were all violent in nature. There were no female criminal offenders sentenced in this category. Life sentences were reported among the 6 per cent (n=6) of the male criminal offenders and the crimes were violent in nature. There were no female criminal offenders sentenced in this category.

Table 10: F-Statistics for the Differences on the Social Re-adjustment Rating Scale, the Minnesota Multiphasic Personality Inventory-2, and the Dissociative Experience Scale between Criminal and Clinical Offenders

| | Wilks' Lambda | F | Df | Р |
|--------|---------------|-------|--------|------|
| SRRS | .969 | 4.353 | 1, 138 | .039 |
| MMPI-2 | .980 | 2.880 | 1, 138 | .092 |
| DES | .960 | 5.74 | 1, 138 | .018 |

Table 10 shows inferential support for the statistically significant differences on the Social Readjustment Rating Scale, the Minnesota Multiphasic Personality Inventory-II and the Dissociative Experience Scale between criminal and clinical offenders. The Dissociative Experience Scale had a p value of 0.018, which is statistically significant. This indicates that dissociation was more commonly reported among criminal offenders and is significantly associated with criminal offending. The results further indicate that the discriminant function analysis gave a significant p value of 0.039 for the Social Re-adjustment Rating Scale, suggesting that high stress levels are a significant factor in determining whether one is likely to engage in criminal behaviour and whether one is a criminal or clinical offender. The discriminant factor analysis showed a p value of 0.092 for the Minnesota Multiphasic Personality Inventory-II, which was marginally significant. This indicates that personality is a marginally contributing factor in determining whether one is a criminal or clinical offender in the current model. There are other factors in the model that are strong contributors in determining whether one is a criminal or clinical offender. Personality was shown to have a marginal effect as a contributing factor.

Table 10 further shows that the model composed of the three independent variables, namely the Social Re-adjustment Rating Scale, the Minnesota Multiphasic Personality Inventory-II and the Dissociative Experience Scale explains only 11.63 per cent of the variance in the grouping variable of clinical vs criminal offenders. This means that 88.37 per cent of the variance is not explained by these variables in the model and this is statistically significant, p = 0.000. Alternatively, there are other variables that would explain the difference between the two groups other than the model of the Social Re-adjustment Rating Scale, the Minnesota Multiphasic

Personality Inventory–II and the Dissociative experience Scale Model. This will be addressed in the discussion.

Table 11: Log Determinants Table for Criminal vs Clinical Offender Groups with the Social Readjustment Rating Scale, the Minnesota Multiphasic Personality Inventory-2, and the Dissociative Experience Scale as the independent variables

| | Rank | Log Determinant |
|----------------------|------|-----------------|
| Criminal Offender | 3 | 5.855 |
| Clinical Offender | 3 | 7.033 |
| Pooled within-groups | 3 | 6.549 |

Table 11 shows the Box M test that looks for the non-significant M to show similarity and lack of significant differences. The results confirm the assumption that equality of covariance matrices was not violated, i.e. Box's M was *not* significant, 12.197, with F = 1.985, p = .064. This indicates that the two groups under study are similar and legitimately comparable.

Table 12: Standardised Canonical Discriminant Function Table for Criminal vs ClinicalOffender Groups with the Social Re-adjustment Rating Scale, the Minnesota MultiphasicPersonality Inventory-2, and the Dissociative Experience Scale as the independent variables

| | Function |
|--------|----------|
| SRRS | .539 |
| MMPI-2 | 729 |
| DES | .795 |
| | |

Table 12 shows that the Dissociative Experience Scale was the strongest predictor of whether one is likely to be a criminal offender or clinical offender while the Social Re-adjustment Rating Scale was next in significance as a predictor, followed by the Minnesota Multiphasic Personality Inventory-II which indicated a negative relationship. This suggests that in the current sample the more personality pathology one has, the more likely it is that one will engage in criminal behaviour. In effect these results indicate that criminal offenders and clinical offenders with more psychological disturbance and high levels of stress are more prone to engage in criminal behaviour. Figure 1: Differences in the Frequency of Violent, Non-Violent and "Other" Crimes Committed by Criminal vs Clinical Offenders

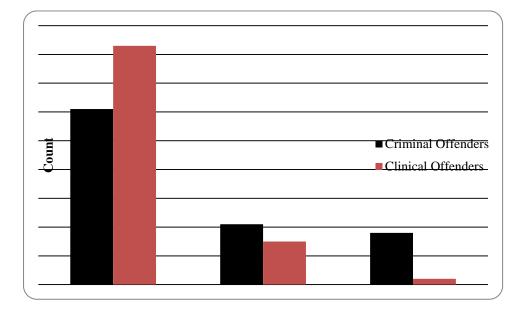


Figure 1 show the results of the Chi-Square test for independence, which was used to determine whether an association exists between two nominally categorical variables. A Chi-Square test for independence was conducted to test the relationship between types of offenders (Criminal vs Clinical offender types) and Offence (Violent vs Non-Violent vs "Other Crimes"). Mitchell (1999) defines violent crimes as intentional acts of aggression in humans that violate criminal law. Non-Violent crimes refer to offences against the criminal law in the absence of physical violence. These would involve all forms of stealing other than robbery. The other category would include crimes that could be categorized outside the violent and non-violent crimes. These would involve crimes such as fraud, crimes related to debts, crimes of falsification, traffic crimes (drunken driving, driving without a license), gambling, smuggling and tax evasion (Wikstrom, 1989).

The results indicate a significant relationship between types of offender and offence committed, χ^{2} (2, n = 200) = 17.16, *p* = .000. This implies that clinical offenders are more likely to commit violent crimes than criminal offenders and that the latter are generally more likely to commit non-violent and other crimes.

Table 13: Clinical vs Criminal Offenders' Mean Scores on the Secure, Preoccupied, Fearful andDismissive Attachment Styles

| | Criminal Offenders | Clinical Offenders | Total |
|-------------|--------------------|--------------------|-------------|
| | N=100 | N=100 | |
| | X SD | X SD | |
| Secure | 2.01 (0.26) | 1.97 (0.28) | 1.99 (0.27) |
| Preoccupied | 2.98 (0.12) | 2.98 (0.12) | 2.98 (0.12) |
| Dismissive | 3.00 (0.44) | 3.08 (0.48) | 3.04 (0.47) |
| Fearful | 1.78 (0.36) | 1.68 (0.40) | 1.73 (0.38) |

Table 13 tests the effects of different attachment styles on offences committed using the discriminant function analysis. The results indicate that the majority of the participants both in the clinical and criminal offender groups presented with insecure attachment, mainly, the dismissive attachment style. The dismissive attachment style was the highest, followed by preoccupied and fearful attachment styles. Approximately 2 per cent (n=2) indicated secure attachment styles.

| | Wilks' Lambda | F | Df | Р |
|-------------|---------------|------|--------|------|
| Secure | 0.996 | 1.04 | 1, 198 | .309 |
| Preoccupied | 1.000 | 0.01 | 1, 198 | .909 |
| Dismissive | 0.970 | 6.05 | 1, 198 | .015 |
| Fearful | 0.984 | 3.24 | 1,198 | .073 |

 Table 14: F-Statistics for the Differences on Secure, Preoccupied, Fearful and Dismissive

 Attachment Styles between Criminal and Clinical Offenders

Table 14 indicates that only dismissive and fearful attachment styles were statistically significant. This implies that the dismissive attachment styles are closely correlated with criminal behaviour, while fearful attachment style was marginally correlated with criminal behaviour. The results further indicate that the model of the attachment styles as an independent variable explains only 3.46 per cent of the variance in the grouping variable of whether one is likely to be a criminal or a clinical offender. That is, 96.54 per cent of the variance was not explained in the model, which was statistically significant, p = .000. This indicates there are other variables that would explain whether one is a criminal or clinical offender other than the variable of attachment styles.

Table 15: Standardised Canonical Discriminant Function Table for Criminal vs ClinicalOffender Groups with Attachment Styles as the independent variables

| | Function | |
|-------------|----------|--|
| Secure | 026 | |
| Preoccupied | 144 | |
| Dismissive | .804 | |
| Fearful | 377 | |
| | | |

Table 15 indicates that dismissive and fearful attachment styles were the only strong predictors which successfully differentiated between criminal and clinical offenders.

Table 16: Structure Matrix Table for Criminal vs Clinical Offender Groups with the AttachmentStyles as the independent variables

| | Function |
|-------------|----------|
| Secure | 382 |
| Preoccupied | 043 |
| Dismissive | .922 |
| Fearful | 676 |
| | |

Table 16 indicates that dismissive attachment style is the strongest predictor of the likelihood to engage in criminal behaviour in criminal and clinical offenders. This suggests that the more dismissive one's attachment style, the more likely it is that it will serve as a significant discriminant between clinical and criminal offenders. The preoccupied attachment style has no loading, indicating that it was the weakest predictor of the likelihood of criminal behaviour among both criminal and clinical offenders. The fearful attachment style shows evidence of a negative relationship between criminal and clinical offenders. This suggests that the less an individual is comfortable getting close to and depending on others, the higher the likelihood that such an individual will engage in criminal behaviour. The results indicate that a secure attachment style has a negative relationship with being a criminal or clinical offender. This implies that the less secure an attachment style is, the more likely it is that there will be an engagement in criminal behaviour, within the current sample.

Table 17: Log Determinants Table for Criminal vs Clinical Offender Groups with attachmentstyles as the independent variables

| | Rank | Log Determinant |
|----------------------|------|-----------------|
| Criminal Offender | 3 | -11.083 |
| Clinical Offender | 3 | -10.799 |
| Pooled within-groups | 3 | -10.902 |

Table 17 confirms the assumption that the equality of covariance matrices was not violated, Box's M was not significant, 7.646, F = 0.748, p = .680. This means that the two groups under study, namely clinical and criminal offenders, are similar and legitimately comparable in relation to different attachment styles.

11.2 SUMMARY OF THE RESULTS

In summary, the results of the present study indicate that there were only four female participants among the clinical offender group and that the rest of the offenders were male participants. The results indicate a significantly high number of females in the prison setting compared to the clinical forensic setting. The results further indicate a high number of participants who were single or not in relationships from both criminal and clinical offender groups. More participants were married in the criminal offender group compared to the clinical offender group. Participants who were separated from their spouses or partners were greater in number in the clinical offender group and divorced respondents were equally represented in both groups under study.

Furthermore, the results reveal that more participants in the study were Black for both groups and that Coloured and White were relatively higher for the clinical offender group compared to criminal offender group.

The results also indicate that a high number of participants in the study from both groups reported a lack of tertiary education. Of note is that there were a relatively high number of criminal offenders that reported that they had a tertiary qualification.

Clinical offenders committed more violent crimes compared to criminal offenders. Criminal offenders tended to commit more non-violent and "other" types of crimes compared to the clinical offender group. More criminal offenders reported that it was their first time in prison and more clinical offenders reported that it was their first time in hospital. In terms of recidivism, criminal offenders tended to have a history of previous crimes committed in both violent and

non-violent crime categories, with the latter being the highest. More criminal offenders reported that they were homeless, while more clinical offenders reported that they did have a home.

Criminal offenders tended to report more dissociative symptoms in the Dissociative Experience Scale compared to clinical offenders. The Dissociative Experience Scale was statistically significant, which suggests that dissociative experiences are a strong determinant of whether one is a criminal or clinical offender in the present study. When the standardised canonical determinants function was performed, the Dissociative Experience Scale showed a positive relationship. The positive relationship would mean that, the higher the dissociative experiences reported, the greater likelihood of engagement with criminal behaviour.

The results indicate that clinical offenders reported higher stress levels compared with those of criminal offenders. The Social Re-adjustment Rating Scale was statistically significant, suggesting that stress was a strong discriminant of whether one is a criminal or clinical offender. When the standardised canonical determinants function and structure matrix were performed, the Social Re-adjustment Rating Scale showed a positive relationship. This suggests that the higher levels of stress were correlated with higher incidents of criminal behaviour. Both the groups under study reported limited sexual past childhood and adulthood trauma. The researcher noted the possibility of high levels of defensiveness and possible under-reporting. Physical abuse as a child was reported more among criminal offenders compared to clinical offenders. Criminal offenders reported higher levels of being repeatedly ridiculed by a romantic partner or family member, compared to those in the clinical offender group. Clinical offenders reported more physical force or intimidation with a weapon used against them in a robbery or mugging. Clinical

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offenders reported more threats with a knife or gun compared with criminal offenders. Both the criminal and clinical offenders reported similar histories of a close family member dying through an accident, homicide or suicide as well as witnessing someone being killed or seriously injured. It is important to note that in terms of past trauma, with the exception of physical abuse as a child, which was marginally significant, the other traumas assessed in the study were not statistically significant. This suggests that physical abuse as a child is a significant determinant of whether one is a criminal offender or clinical offender. The two groups under study did not differ significantly in terms of physical and emotional or psychological abuse endured as an adult. Although these traumas were not statistically significant, they were reported in high numbers for both groups under study. Although traumatic events such as psychological abuse, sexual abuse, and physical abuse including exposure to violence were not statistically significant, they remain highly reported between both groups and as a result strong contributors to criminal behaviour in general.

The results indicate that the Minnesota Multiphasic Personality Inventory-II is marginally significant as a determinant factor as to whether one is a criminal or clinical offender. Clinical offenders reported more psychological problems as compared to criminal offenders. Clinical offenders reported psychological problems such as depression, health problems, anger, low self-esteem and family problems. Criminal offenders reported more antisocial practices and psychasthenia (more commonly known to include obsessive worries and exaggerated fears). When One Way Analysis Of Variance (ANOVAs) were performed on these psychological difficulties, only health problems were marginally significant. The other psychological difficulties such as depression, anger, antisocial practices, low self-esteem, psychasthenia and family problems were statistically significant, suggesting that they were strong determinants of

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whether one is a criminal or clinical offender. When the standardised canonical determinants function was performed, the Minnesota Multiphasic Personality Inventory-II showed a negative relationship. The negative relationship would mean that, the higher the psychological pathology reported, the greater the vulnerability to engage in criminal behaviour.

The results indicate that more clinical offenders compared to criminal offenders reported a dismissive style of attachment. In addition the dismissive and fearful attachment styles were statistically significant; suggesting that they are strong determinants of whether one is a criminal or clinical offender. Preoccupied attachment style had no loading, thus regarded as the weakest predictor in the current study. The secure attachment style had a negative relationship with offender behaviour in either group. This suggests that, secure attachment is not correlated with criminal behaviour.

In conclusion, dissociative experiences, poor social re-adjustment, the presence of psychopathology, dismissive and fearful attachment styles were all strong determinants of criminal or clinical offender behaviour. Criminal offenders reported more dissociative experiences as compared to clinical offenders. The positive relationship indicates that the higher the dissociative experiences, the more likely that one would engage in criminal behaviour. Clinical offenders reported increased stress levels. The positive relationship suggested that high levels of stress correlated with higher incidents of criminal behaviour. Clinical offenders reported more psychological problems, such as depression, anger, low self-esteem and family problems and criminal offenders reported more antisocial practices. Results also showed that the higher the psychological and personality pathology, the more likely that one is vulnerable to engage in criminal behaviour. Clinical offenders reported more dismissive attachment styles as compared to engage in criminal behaviour.

criminal offenders. Both dismissive and fearful attachment styles were strong determinants of whether one is a criminal or clinical offender.

CHAPTER 12

12.1 DISCUSSION

The descriptive statistics relating to the biographical details in the current study as shown in Table 1 indicated that the mean age for both groups under study was 33.65 years for criminal offenders and 36.69 years for clinical offenders. This is consistent with the study conducted by Strydom et al., (2011) who conducted a study with 120 forensic psychiatric inpatients referred to the Free State psychiatric complex examining their profiles. These researchers found that their mean age was 32.5 years. However, this finding is different from the previous studies that have shown the presentation of criminal behaviour and mental illness between eighteen years and twenty three years (Moffitt, Caspi, Dickson, Silva & Stanton, 1996; Shadd, 1997). Similarly, victimisation and offending have been reported to be at peak between twelve years and twenty one years (Sherman, 1998; Amoran et al., 2005). However, Su et al., (2000) reported the mean age of thirty one years when investigating criminal behaviour among the intellectually disabled. It is possible that intellectual disability may serve as a temporary protective factor delaying the beginning of criminal activity. It is also likely that criminal convictions and placement in mental health facilities may occur later in intellectually disabled patients who may be protected from the consequences of their actions in their early years. In addition, most of these individuals are no longer under supervision and as a result are more susceptible to manipulation and criminal offending. Although intellectually disabled people have decreased maturity and impaired cognition as well as the ability to plan and execute criminal activity, they are often manipulated and used by others to execute criminal plans. During childhood when they may be closely supervised, this may serve as a protective factor. As they grow older and are less supervised, they are more vulnerable to negative influences, manipulation and possible criminal behaviour. In addition, when they engage in risky and challenging behaviour at a younger age or whilst they are in a protected environment, the behaviour is likely to be judged as part their immaturity and managed either through supervision, placement or psychological treatment rather than punished as a legal act of criminality.

In the current study, participants also had a poor level of education and it is possible that the delayed mean age is as a result of poor schooling such as past failures or grades being repeated as a result of behavioural problems or mental illness. This may also be linked to a less efficient and more time consuming criminal justice system, where, due to limited resources, awaiting trial prisoners can wait for long periods of time. Some prisoners are only prosecuted after several offences as they are not reported to police or followed up efficiently. In addition, many cases are withdrawn before they go to trial leading to a lack of confidence in the criminal justice system. Similarly, the public's unwillingness to assist the police in its investigations and to testify for the prosecution and also the lack of sufficient evidence further contribute to conviction delays (Schonteich, 1999). Stravrou (1993) reported that in 1988 the average age of the first offender was 22 years in South Africa. A new trend emerged in 1990 when the average age of first offender dropped to 18 years of age. This was linked to the post-apartheid era where the rate of criminal and political violence was also high. However, due to current general delays in the criminal justice system, high crime rates and limited police staff available, many criminals are not arrested at the time of their first offence.

Gender was evenly distributed among the criminal offenders. Nevertheless; in the clinical offender sample only four females participated in the study compared to 96 males. Holmes (2010) investigated the increase of female criminal offending over a period of 10 years. The

author found that the number of female offenders apprehended by the police increased by 15 per cent and that they were most likely to commit crimes such as shoplifting, domestic violence, assault, fraud and possession or use of drugs. This may be linked to transformation in South Africa. There is an increase in woman headed households or where women are main and sole breadwinners. Women as the sole head of households do experience pressure to provide. Women may be taking a much more aggressive role in providing for their families, and defending themselves in instances of abuse or domestic violence. Leschied (2011) argued that women offenders in part, as a function of their pre-incarceration histories, would display more elevated risky behaviours as expressed through aggression, self-injury and multiple emotion-related disorders. Steadman and Veysey (1997) reported that in US prisons, the prevalence estimates for women for overall mental health disorder was 18.8 per cent, a rate greater than twice that for males, with acute emotional disorder three times the rate, and more than four times the rate for serious depressive disorder. Furthermore, the World Health Organisation (2008) reported that gender was a critical determinant of mental health and mental illness with depression and anxiety being higher among women. This raised questions as to whether the majority of females with psychological difficulties are admitted for brief periods in the criminal service and are not receiving professional help. The statistics of the women who participated in the current study could mean that some of those women who were incarcerated in the prison might have been better served in state mental hospitals, where they would have received the necessary psychological and psychiatric professional help. It would appear that the psychological difficulties that women face prior to incarceration within a lower socio-economic context including childrearing responsibilities without support may increase their risk of mental illness and the possibility of expressing themselves in antisocial behaviours that would pave their way to prison (Covington & Bloom, 2003).

In the current sample, 85 per cent (n=85) of clinical offenders and 65 per cent (n=65) of criminal offenders did not have tertiary education. Though these findings do not reflect intellectual disability, they do however imply poor levels of education. There could be a number of different reasons for why the population under study did not further their studies. In the present study, people who did not have a tertiary qualification were much more likely to commit crimes, whether they were criminal or clinical offenders. This is consistent with global trends and educational level attained in other prison populations (Harlow, 2003; Haulard, 2001). However, 85 per cent (n=85) of the clinical offender group had no tertiary qualifications compared to 65 per cent (n=65) of the criminal offender group. Thirty five per cent (n=35) of the criminal offender group had tertiary qualifications compared with only 15 per cent (n=35) of the clinical offender group. Clinical offenders might have had poorer educational qualifications due to their more debilitating psychiatric illness. These are chronic illnesses, potentially starting at young age, affecting cognitive, emotional and occupational functioning in particular. This would result in low levels of education and be in keeping with impairment in functioning from an early age. There have been many studies linking unemployment rates to criminal behaviour (Gould et al., 2002; Machin et al., 2004). Similarly, Lochner (2004) argued that education tended to increase wage rates and reduce the likelihood of unemployment. Furthermore, education increased the view that an individual with higher level of education had more to lose when engaging in criminal activitity and as a result tended to reduce post-school criminal activity. It might also be argued that more attendance limits the time and opportunity to engage in criminal activity. This is consistent with a study by Freeman (1996) who pointed out that more than two-thirds of all incarcerated men in 1993 had not graduated from a high school. It is also noted that there is a possibility that more of the participants in the criminal offenders sample obtained their education while incarcerated through long distance education. However, international trends tend to

indicate that psychiatrically impaired individuals underperform with regard to education or qualification (Megivern, Pellerito, & Mowbray, 2003).

The majority of the participants in the current study reported low socio-economic status with no home and extremely low levels of education. This is consistent with the study by Machin and Meghir (2004), which argued that criminals were more likely to come from the bottom end of the wage distribution. Demombynes and Ozler (2005) claimed that burglaries in South Africa were more likely to occur in wealthier areas that were perceived to be priviledged and unequal. Furthermore, the authors suggested that criminals travel to neighbourhoods where the anticipated burglary returns are expected to be high. The authors did not find evidence that inequality between racial groups fosters interpersonal conflict at the local level. Similarly, Anderson (2009) stated that income inequality drives crime.

The present study indicated that it was mostly single individuals (in terms of marital status) who were incarcerated for committing crimes, whether they were criminal or clinical offenders. However, of the two groups, clinical offenders had a higher rate of single status. Eleven per cent (n=11) of the criminal offender group were married and only 6 per cent (n=6) were from the clinical offender group. This is consistent with the longitudinal study conducted by Sampson, Laub and Wimer (2006) who investigated whether marriage reduced crime. These authors estimated the protective causal effects of marriage on crime and adult development. The researchers found that being married was associated with a significant reduction in the probability of crime. These findings were consistent with the notion that marriage serves as a protective factor by inhibiting crime over the course of life. These authors argued that marriage has the potential to separate the past from the present in the lives of disadvantaged men and lead to one

or more of the following: opportunities for investment in new relationships that offer social support, growth, and access to new social networks; structured routines that centre more on family life and less on unstructured time with peers; forms of direct and indirect supervision and monitoring of behaviour; and/or situations that provide an opportunity for identity transformation and that allow for the emergence of a new self. Furthermore, these researchers looked at whether changes in marital attachment or spouse criminal behaviour had different outcomes. The researchers examined the individual differences in marital attachment at age 25 years and criminal involvement of spouses at age 25 years among a subset of approximately 225 married men. Controlling for these differences, the authors found that individual variations in crime were still negatively and strongly associated with being married versus being unmarried. Thus, they concluded that being married, at least during the young adult years, inhibited crime regardless of the quality of the marriage and the criminal involvement of the spouse (Sampson et al., 2006).

It may be argued that the clinical offenders group also may have had single marital status, possibly as a result of the clinical pathology. Harris and Koepsell (1998) conducted a descriptive study recording the biographical details and recidivism between mentally ill and non-mentally ill offenders. These authors found that 67.7 per cent of their mentally ill offenders were single. Similarly, psychiatric and personality disordered patients are more likely to be single due to their pathology and difficulties with interpersonal relationships (Harris & Koepsell, 1998). In the present study, the clinical offender sample with both criminal convictions and comorbid psychiatric difficulties were at increased risk to be single.

Ninety one per cent (n=91) of the criminal offender group were homeless as compared to nine per cent (n=9) of the clinical offender group who also did not have homes. Seventy eight per cent

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(n=78) of the clinical offenders had homes as compared to the nine per cent (n=9) of the criminal offender group. It appears that the absence of a home introduces an element of instability and increases the risk for engaging in criminal behaviour.

Individuals who are homeless also lack family ties and are likely to manifest poor attachment and affectional bonds. The absence of a home, family ties and affectional bonds undermines the development of a value system, while individual factors such as a sense of belongingness, the need for love and to be loved, ruptures ties with the outside world or the community. Individuals without homes also lack basic resources such as food and shelter and therefore are at a higher risk of committing crime. This is consistent with the study by Steffensmeier et al., (1998) who reported that women and older offenders were seen as having more ties to the community, more likely to be supporting a family, and more likely to have a steady job current or in the future. Young black males were seen as lacking such social bonds that are thought to insulate individuals from future criminal involvement. The youth of South Africa do not merely adopt violence as a means to protect themselves from others but to a make living in the midst of scant economic opportunities (Noonnan, 2012). South Africa is known for high employment rates with an unsustainable economic landscape and as a result for some there only a few options beyond starvation or illegal activities. For some, gang membership becomes an alternative career. Noonnan (2012) suggested that in sociological terms, violence is perceived as being built into the structure of society revealing unequal opportunities. As a result, some people have unfettered access to what they need due to wealth, class level, and race while those without such access have impaired personal development. For young black males in South Africa, violent behaviour serves as a protective measure in their fight for survival. It becomes an attempt to claim and assert power within the environment that has left them feeling powerless and that is rewarded by forcible acquisition of that which they lack such as money, goods and status (Noonnan, 2012). The results of the present study support this finding as higher rates of single males were found in the criminal offender group. Similarly Daly (1994) concluded from her New Haven study that indicators of stability and conventionality such as employment or care of others were likely to favour female defendants and least likely to favour young black male defendants. For example, younger black and male defendants were seen as more of a threat to the community, dangerous, committed to street life and not as reformable as women and older offenders. In addition, the criminality of young black men was less likely to be mitigated by prior victimisation. The participants in the current study were characterised by high rates of homelessness, poor socio-economic status, limited education from both groups (clinical and criminal) and therefore their risks of being alienated from family and community were very high as was their likelihood of engaging in criminal behaviour.

Approximately 93 per cent (n=93) of the participants from the criminal offender group were Black. Similarly, 75 per cent (n=75) of the clinical offender population were Black. Of note, is the fact that 13 per cent (n=13) of the participants from clinical offender group were Coloureds and 11 per cent (n=11) were White. This racial profile is reflective of the general racial profile distribution in South Africa according to the recent South African census (2012) indicating that 79 per cent of population is African, 9.6 per cent being White, 8.9 per cent Coloured and Asian is 2.5 per cent. Therefore, the results in the current study suggest that race is not a predictor of criminal behaviour. Although the racial distribution in both groups is broadly reflective of racial distribution in South Africa, the high percentage of socio-economic disadvantage, lack of housing and education is clearly associated with criminal risk. So, it appears that it is a cluster of various factors that contribute to crime.

This is consistent with the study conducted by Steffensmeier, Ulmer and Kramer (1998) on the interaction of race, gender, and age in criminal sentencing, looking specifically at the punishment severity in relation to the profile of young, black, and male. In their analysis they attempted to reconcile the anomalies and to assess the possibility that racial discrimination had neither declined nor disappeared, but that it also varied according to other social statuses such as age or gender. These researchers assessed whether race interacted with age and gender and affected sentence severity only for particular types of defendants. The authors found that the primary determinants of a judge's sentencing decisions were the seriousness of the crime committed and the defendant's prior record; the mode of conviction and court size also exhibited important influences. Furthermore, Steffensmeier et al., (1998) found that each of the three offender statuses including race, gender, and age had significant independent effects on sentencing, and that each of these interacted in their influence on sentencing. They found that the influence of age on sentence severity was contingent on the defendant's gender and, to a lesser extent, race. Among males, younger offenders were sentenced more harshly than older offenders, whereas the age effects were negligible among female offenders (Steffensmeier et al., 1998).

A fairly consistent finding in the sentencing research was that adult female defendants were treated more leniently than adult male defendants (Bickle & Peterson, 1991; Daly & Bordt, 1995; Steffensmeier et al., 1993). Similarly, Steffensmeier et al., (1993) conducted qualitative interviews to demonstrate how the judges and others assessed offenders. They found that the criminal records of young black males were often defined as qualitatively more serious and indicative of future crime risk compared to other types of defendants such as older black offenders. In addition, the researchers found that women and older offenders were defined as less dangerous and posed a lower risk to community compared to younger black males. The authors

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added that the blameworthiness of women and older offenders was more often mitigated by the prospects of being victimised themselves by coercion at the hands of men, drug or alcohol problems, or psychological disorders. Women and older offenders were also seen as potentially presenting greater costs and problems for the correctional system to bear in terms of health care and child welfare (Steffensmeier et al., 1993).

The study is not consistent with the proportional racial demographics of South Africa since it is a US study. The current findings indicated that 75 per cent of the participants in this study were Black, which is slightly lower than that recorded as the racial demographic in South Africa. In addition, studies on race in overseas countries where black race is a minority group may not be relevant in African studies.

In the current study, 83 per cent of the clinical offenders (n=83) committed more violent crimes compared to 61 per cent criminal offenders (n=61). Twenty one per cent (n=21) of non-violent crimes were also higher among criminal offenders compared to 15 per cent (n=15) of the clinical offenders. The higher rates of violent crimes in clinical offenders could be linked to their psychiatric diagnosis and high risk of violence (Ural, Oncu, Belli & Soysal, 2013). The psychiatric symptoms of the illnesses such as schizophrenia may present with command hallucinations and visual hallucinations that place the person at increased risk for violence. It is however possible that people who commit violent crimes are more likely to be sent for forensic observation. Of note in the present study was that females tended to commit non-violent crimes and as a result had lesser sentences compared to male offenders who tended to commit violent crimes against individuals and had serious and harsher sentences. This is consistent with the analysis of convicted federal offenders conducted by Mustard (2001), which found that gender

differences were strongest for bank robbery and drug trafficking, with females being sentenced to, respectively, 21.59 and 11.00 fewer months in prison than males. However, gender differences were found to be smaller for larceny, fraud and immigration violations with differences ranging from 1.68 fewer months to 0.82 fewer months. There were no differences observed for firearms violations (Mustard, 2001). Similarly, Bushway and Piehl (2001) supported the fact that female offenders receive shorter sentences or less severe sentences. The majority of research in this area has focused on chivalry, which perceives females as being fickle, childlike, needing protection by males and stipulates the need to minimise pain and suffering women might experience (Spohn, 1999; Farnworth & Teske, 1995). However, selective chivalry, which stipulates that gender-role adherence may condition chivalrous outcomes such as preferential sentencing outcomes as available to female offenders whose criminality does not violate gender expectations. These are reasons for adult female offenders' tendency to receive milder sentences male offenders (Spohn, 1999; Farnworth & Teske, 1995). However, there have been relatively few efforts that have assessed whether offender-gender effects on sentencing might vary across crime type (Farnworth et al., 1995; Koons-Witt, 2002, Stteffensmeier et al., 1998; Steffeinmeier et al., 1993). Due to restricted information judges might have, they tend to look at issues relating to the blameworthiness and dangerousness of the offender towards the community as focal concerns to manage any ambiguity. As a result, certain qualities are easily attributed to offenders based on gender. Female offenders may thus be viewed as less of risk to the community or less likely to reoffend (Albonetti, 1991). Farnworth et al., (1995) suggested that sentencing leniency is likely manifested towards females who commit crimes that are perceived as being typical of females and stereotypic female gender roles such as drug use, property crimes such as shoplifting and cheque forgery. In the present study, female offenders tended to commit crimes such as drug related, fraud and shoplifting. The results of the present study indicate that the sentences given to

those incarcerated in the criminal offender group seemed shorter for females compared with males. Furthermore, males tended to commit more violent crimes such as murder and rape compared to female criminal offenders who tended to commit more non-violent crimes such as theft, corruption and fraud. The few violent crimes committed by females were related to assault.

In South Africa, the criminal legislation has attempted to limit sentencing discretion by introducing mandatory minimum sentences. However, this evoked strong protest from legal circles in the past. The Viljoen Commission of Inquiry into the Penal System of the Republic of South Africa 1971 was of the opinion that prescribed minimum sentences were undesirable and that these could lead to grave injustice. The Criminal Law Amendment Act 105 of 1997 on the other hand makes provision for the imposition of mandatory minimum sentences. The new act lists certain serious crimes such as murder, robbery, rape, aggressive offences, and selected serious economic and narcotics offences. The imposition of life sentence is mandatory for example in cases of multiple rapes, gang rape or rape with aggravating circumstances and/or for a third rape offence. The new act describes actual situations in which mandatory sentences including life imprisonment for murder and rape must be imposed except in instances where the court finds compelling and substantial circumstances that will justify a lesser sentence. In this way, the new act promotes consistency of sentences and equality before the law. The amendment act allows for diverging interpretations of compelling and substantial circumstances. It was however compiled as a temporary measure that was extended until there was evidence of further reforms in the field of sentencing. Furthermore, there had been numerous calls from civil society for more severe punishment for violent crimes following an increase in violent crimes through the 1990s. Giffard and Muntingh (2006) found that in the period 1995 to 2005, the longer sentence categories had increased the most. The difficulty with longer sentences is that they

contribute to the problem of overcrowding in the prison. The longer stay involved prisoners who had previous offences and had not finished the current offences. The Correctional Services Act 73(6)(b)(v) stipulates that prisoners sentenced in terms of the minimum sentences legislation may not be released on parole until they have completed 80 per cent of their sentence or 25 years, whichever is shorter. In the current study, males committed more of the violent crimes and were sentenced with longer sentences. This is in keeping with the legislation records where severe sentences are handed down to sex offenders and other violent crimes such as murder and robbery.

The higher rate of violent crime committed by clinical offenders in the present study is consistent with the study by Fazel and Grann (2006) who found that the population impact of patients with severe mental illness on violent crime, estimated by the population-attributable risk of 5 per cent suggested that one in 20 violent crimes is committed by patients with severe mental illness. Yet, Grohol (2006) conducted a study looking at the rate of violent crime in over 8,000 people diagnosed with schizophrenia between 1973 and 2006; had a control group of 80,000 people from the general population of Sweden. The results of his study showed that only five per cent of the general population was convicted of violent crime during the study period compared to eight per cent of those with schizophrenia and no substance abuse, which was not statistically significant. The results of the study indicated that the overrepresentation of individuals with schizophrenia in violent crime is attributable to concurrent substance abuse. He concluded that this association between violent crime and substance abuse was not unique to people with mental illness but appeared in the general population as well. The study looks at the relationship between mental illness and violent crime as if it were a linear relationship, thus excluding social and political factors that may have a significant contribution to the association between the two variables.

In the current study, the "other" crimes committed, which would include fraud and corruption, 18 per cent (n=18) was reported among criminal offenders compared to two per cent (n=2) by the clinical offenders. Crimes such as fraud require intact cognitive abilities, and these might be impaired within the clinical offender group. It is also possible that the crimes committed among the clinical offender group were more an indirect function of their mental illness and less a deliberate act of pre-meditated self-enrichment.

Seventy seven per cent of criminal offenders (n=77) were first time offenders compared to 55 per cent (n=55) of the clinical offenders. Of note was that recidivism was reported in 45 per cent (n=45) of the clinical offenders compared to 23 per cent (n=23) of the criminal offender group. It is possible that the addition of a mental illness compounds the effects of rehabilitation and rates of recidivism. Twenty three per cent of the criminal offenders were not incarcerated for the first time and had other previous offences, where 13 per cent (n=23) had committed violent crimes compared to one per cent (n=23) from the clinical offender group. Interestingly, Stuart and Brice-Baker (2004) found that the violent offenders in their study had the lowest recidivism rates and they attributed this to longer sentences and subsequently less time spent outside of prison and thus had fewer opportunities to re-offend. This finding differs from the present study, in which the clinical offender group had the highest rate of violent crimes committed and high rates of recidivism. The higher rate of recidivism among clinical offender group, i.e. 45 per cent may be attributed to compounding factors more likely to occur in psychiatric patients. These compounding variables would include levels of non-compliance with regards to medication treatment, limited mental health resources, premature discharge or poor supervision leading to absconding from psychiatric facilities all of which could account for higher rates of recidivism among the clinical offender group. The results of the current study indicate that 33 per cent of the

clinical offender group were noted to be non-compliant with their psychiatric treatment. Nageotte, Sullivan, Duan and Camp (1997) conducted a study with 202 African-American males the majority of whom were of low income looking at medication compliance among the seriously ill in a public mental health system. These researchers found that non-compliance was very high among those who did not believe they had a mental illness, patients who were less involved in their treatment and complained of side effects. Similarly, Sharif, Ogunbanjo and Malete (2003) found that lack of proper information about mental illness to the patients and caregivers, poor infrastructure such as adequate community mental health care facilities, low socio-economic status, side effects, lack of insight, lack of continual family support and care as well as lack of patient involvement in their management better accounted for non-compliance with psychiatric medication.

Substance abuse and dependence have been uniquely associated with violence (Arsenault et al., 2000). In the present study, 13 per cent (n=13) of the clinical offenders were diagnosed with mood and psychosis secondary to substance abuse and 24 per cent (n=24) were diagnosed with substance abuse as a comorbid diagnosis. Furthermore, the results of the study show that more violent crimes were committed in the clinical offender group compared to the criminal offender group. It would appear that the presence of the substance abuse or dependency serves as a contributing factor. Some studies have shown that the presence of substance abuse or dependence increases the likelihood of violent behaviour (Wallace et al., 2004 & Steele, Darjee & Thomson, 2003). Swartz et al., (1998) argue that alcohol or drug abuse problems combined with poor adherence to medication may signal higher risk of violent behaviour among persons with severe mental illness. Reducing this risk may require carefully targeted community interventions, including integrated mental health and substance abuse treatment (Swartz et al., 1998; Pristach &

Smith, 1990). Similarly, a number of studies have indicated that substance abuse cormobidity has also been associated with generally poor clinical outcomes among the severely mentally ill individuals in the community (Bartels, Drake & Wallach, 1995; Swanson et al., 1996; Cuffel, Shumway, Chouljian & Macdonald, 1994).

In the current study, stress levels were assessed separately from the traumatic events in terms of their association with offending behaviour. The results of this study indicated that there were higher levels of stress reported among the clinical offenders (M=6.49; SD=4.66) as compared to the criminal offenders (M=5.04; SD = 3.46). Studies have found a relationship between lower socio-economic status and poor physical and mental health (Baum, Garofalo & Yali; Lundberg, 1999; Turner, Lloyd & Roszell, 1999). One explanation for this association is the social distribution of stress, with individuals of lower socio-economic status tending to reside in impoverished neighbourhoods, which are replete with more stressors. These stressors place socio-economically disadvantaged individuals more at risk for mental illness or lower the risk threshold for mental illness in those predisposed to psychiatric illness. For example, Turner and Lloyd (1995) reported that recent life events, chronic stress and lifetime traumas are all associated with depression.

The results of the present study indicated that childhood sexual trauma was not reported as a significant factor as to whether one engages in criminal behaviour. The results reveal that about 13 per cent (n=13) of the criminal group and 18 per cent (n=18) from the clinical group reported a history of sexual abuse. Sexual abuse was not statistically significant. Sixty per cent of clinical offenders reported being physically abused as a child compared with 49 per cent of criminal offenders. Physical abuse as a child was marginally significant with a p value of 0.09. This finding differed from many research studies showing a history of maltreatment and loss in up to

90 per cent of their sample population (Boswell, 1996; Fonagy, Target, Steele, Steele, Leigh, Levinson & Kennedy, 1997). Similarly, Renn (2010) found that the adult offenders who had committed violent offences had themselves been victims of childhood abuse and/or suffered neglect or loss, which was experienced as catastrophic. He concluded that the acting out of unresolved trauma through criminal offending behaviour was consistent and strongly associated with substance abuse. In the present study, childhood trauma was not found to be a statistically significant variable discriminating between the two groups under study. Childhood trauma, violence, and exposure to violence were reported higher among both criminal and clinical offender groups, suggesting that these could be contributing variables to criminal behaviour in general.

Physical abuse as an adult was not statistically significant in discriminating between whether a person is a criminal offender or clinical offender and was reported in 41 per cent of the criminal offenders and 32 per cent of the clinical offenders. There is a lack of research looking at the consequences of physical abuse as an adult and its association with criminal behaviour. Research shows that there is an association between childhood abuse and later criminality (Currie, 2006; Boswell, 1996; Lansford, Miller-Johnson, Dodge, Bates & Pettit, 2007). Psychological abuse by a parent, romantic partner or family member was not statistically significant in the present study as a discriminating variable to either being a criminal or clinical offender and it was reported in 50 per cent of the criminal offenders and 41 per cent of the clinical offenders. However, psychological abuse and physical abuse as an adult were reported high in both criminal and clinical offender groups. This could mean that psychological abuse by a parent or romantic partner is a contributing factor to criminal behaviour in general but not in differentiating between criminal or clinical offender.

Physical force suffered during robbery or mugging was not statistically significant in the present study as a discriminator between either criminal or clinical offenders and was reported in 38 per cent of the criminal offenders and 45 per cent of the clinical offenders. The results indicated that a close family member that died violently through either an accident, homicide or suicide was reported in 31 per cent of the criminal offender group and 38 per cent in the clinical offender group. Furthermore, being threatened with a knife or gun was reported in thirty nine participants from the criminal offender group and forty one in the clinical offender group. However, these variables were highly reported among both criminal and clinical offender groups and could be contributing variables to criminal behaviour in general. Eitle and Turner (2002) found that recent exposure to violence in the community along with the history of receiving traumatic news, direct victimisation in the community, recent life events and associations with criminal peers increased the risk of young adult criminal offending. Research findings relating to young offenders show a history of maltreatment and loss in up to 90 per cent of the sample populations (Boswell, 1996; Fonagy et al., 1997). Similarly, Renn (2010) found that those who tended to commit violent offences had themselves been victims of childhood abuse and or suffered neglect or loss experienced as catastrophic.

Forty per cent of the criminal offenders and 39 per cent of the clinical offender group reported witnessing someone being killed or seriously injured. This is consistent with findings by Eitle et al., (2002), who examined the association between witnessing community violence and criminal behaviour and they controlled for the effects of direct victimisation when assessing for the role of domestic violence. The authors found that only community based violent victimisation were significantly associated with young adult criminal behaviour. When measuring vicarious violence, the researchers found that only witnessed community violence and distal traumatic

news were significant predictors of criminal behaviour. With the exception of physical abuse as a child that was marginally significant, the other aspects of trauma measured in the current study were not statistically significant. Of note was that aspects of childhood trauma reported in the study such as sexual abuse, physical abuse as a child and adult, psychological abuse by a parent, romantic partner or family member; physical force suffered in robbery or mugging; a family member dying violently through accident, homicide or suicide; exposure to or being threatened with a gun or knife as well as witnessing someone killed or seriously injured were all reported in similar terms for both groups under study. It could be the case that these variables contribute to criminal behaviour in both groups, but this needs further research.

The results of the MMPI-II showed that the participants tended to be defensive and inconsistent in their responses at times. Profiles that were invalid and unintepretable were excluded from this study. The results from the MMPI-II indicated that inconsistent and infrequent responding as well as the tendency to faking bad or exaggerate symptoms was picked up more among the criminal offenders as compared to clinical offenders. However, it is important to note that the differences between the groups were not significant. Nevertheless, while there was strong evidence of a defensive mindset among the criminal offenders, none was noted among the clinical offenders. This could be attributed to higher levels of distrust among the criminal offender group. It could also be hypothesised that the clinical offenders were in a treating and containing environment compared to the criminal offenders. The clinical setting would afford the clinical offenders an environment where they could allow themselves to be vulnerable and depend on the treating team to help contain and treat symptoms. On the other hand, the prison environment may be less tolerant of perceived weakness or vulnerability and contribute to a climate of distrust (Rappaport, 1982; Huffman, 2005). Furthermore, the results showed that clinical offenders tended to report more psychological problems compared to criminal offenders. One Way Analyses Of Variance (ANOVAs) between groups conducted to test the effect of whether a person was a criminal or clinical offender on the Minnesota Multiphasic Personality Inventory-II measures indicated that the type of offender only had significant effects on depression, health, anger, low self-esteem, antisocial practices, family problems and psychasthenia with p values < 0.05. This suggests that the more severe the psychological problems present, the greater the likelihood of criminal behaviour. This is consistent with a study by Brennan, Mednick and Hodgins (2000) who investigated the relationship between mental disorders and criminal violence. These authors looked specifically at the relationship between violence and hospitalisation for a major mental disorder. They found a positive relationship between major mental disorders that led to hospitalisation and criminal violence. They concluded that individuals hospitalised for schizophrenia and men hospitalised for organic psychosis have higher rates of arrests for violence as compared to those who were never hospitalised. They reported that this relationship could not be fully explained by the demographic factors or comorbid substance abuse. In the current study, the clinical offender group was hospitalised and reported more psychological problems over a longer period or a more chronic nature as compared to criminal offenders. The criminal offender group also reported higher rates of violence. It could be that the high levels of violence reported in both groups contributed to high levels of psychological pathology.

Of note was that criminal offenders reported more antisocial practices compared to clinical offenders. This would explain the higher rates of defensiveness and unreliable responses provided during testing. This is also consistent with a study conducted by Abram and Teplin (1991) who reviewed data on co-occurrences of severe mental disorder, substance abuse and antisocial

personality disorders among 728 randomly selected male jail detainees. These authors found that most incarcerated subjects with a severe mental disorder such as schizophrenia or a major affective disorder also met the criteria for substance abuse and antisocial personality disorder. Similarly, Grann, Langstrom, Tengstrom and Kullgren (1999) found that psychopathy is a predictor for violent recidivism.

The results in the present study indicated that among the clinical offenders, the most prominent diagnoses were schizophrenia (42 per cent; n=42), seven of which were paranoid subtype and bipolar mood disorder (27 per cent; n=27). These are chronic illnesses beginning at a young age, potentially impacting on cognitive, emotional and occupational functioning. This is consistent with the findings arising from a study conducted by Wallace and Mullen (2004) who examined the patterns of criminal convictions in persons with schizophrenia over a 25 year period. They found that patients with schizophrenia accumulated a greater number of criminal convictions and that they were likely to have committed a violent offence. He concluded that there is a significant association between a diagnosis of schizophrenia and higher rates of criminal convictions, particularly the violent crimes. However, some studies report that rates of violence among people with schizophrenia with no known substance use problems are no higher than those of control populations (Monahan et al., 2001; Steadman et al., 1998). These studies controlled for confounders and mediators. It may be legitimate to control for confounders, but controlling for mediators will reduce or obscure significant relationships in the study. It is difficult to control for substance misuse, socio-economic class as well as personality traits. It would make sense that all of the above would contribute significantly to any association between schizophrenia, substance misuse and violent behaviour. Similarly, research has shown that forensic patients with criminal records tend to present with major psychiatric illnesses (Hodgins et al., 1996). In particular,

schizophrenia is a major psychiatric illness that has been associated with an increased risk of violent crime in both males and females (Brennan et al., 2000; Turninger, 2001). Similarly, Wallace et al., found that 68.1 per cent of the criminal convictions were found among subjects with not only schizophrenia but substance abuse as another diagnosis as compared to 11.7 per cent of those with schizophrenia but no substance abuse problems.

There has been evidence that the presence of personality disorders and intellectual disabilities increase the risk of violence (Su et al., 2000). In the current study, 35 per cent of the clinical offender group had a cormobid diagnosis of borderline IQ. Holland, Clare and Mukhopadhyay (2002) investigated the relationship between criminal offending and the presence of an intellectual disability. These authors suggested that this relationship was problematic because of problems associated with the definition of intellectual disability, and problems relating to criminal offending being undetected or unreported. They argue that most studies investigate those already involved with the criminal justice process. In addition, studies using IQ as a continuous variable indicate that significantly below-average intellectual ability is an independent predictor of future offending (Heilbrun, 1982; Vitacco, Neumann & Wodushek, 2008). Whilst people with intellectual disability may be over-represented in parts of the criminal justice system, given the intellectual and other psychosocial disadvantages which they experience, the level of offending behaviour in this particularly vulnerable group is strikingly low (Holland, et al., 2002). These authors assert that it is important to distinguish between challenging behaviour and offending behaviour in order to understand how difficult behaviour becomes identified as antisocial/criminal behaviour. They state that research needs to move from prevalence and descriptive studies to investigating the processes which determine movement in and out the criminal justice system. These researchers claim that current political emphasis on public protection and proposals for significantly broader mental health legislation raise the danger of a re-expansion of institutional models of care, rather than the development of multi-agency support networks and more integrated services (Holland, et al., 2002).

In South Africa, a diagnosis of a personality disorder does not exempt an individual from criminal responsibility. In the present study, 13 per cent of the clinical offender group was diagnosed with personality disorder (antisocial, 7 per cent; borderline, 4 per cent and paranoid, 2 per cent). Tengstrom, Hodgins, Grann, Langstrom and Kullgren (2004) investigated the associations of psychopathy and substance use disorders with criminal offending among 202 men with schizophrenia and 78 men with a primary diagnosis of psychopathy. They compared six groups of offenders and found that non-mentally ill offenders diagnosed with psychopathy committed the highest numbers of offences. Among offenders with schizophrenia, Tengstrom et al., (2004) found that those with high psychopathy scores committed more crimes than those with low psychopathy scores. Among non-mentally ill offenders with psychopathy and schizophrenia, offenders with high psychopathy scores, those with and without substance use disorders committed, on average, similar numbers of offences. The authors suggested that among offenders with psychopathic traits, it was the traits, not substance abuse, which was associated with criminal offending. There is evidence that personality facets of psychopathy are negatively associated with negative emotionality (Hicks & Patric, 2006). Similarly, Verona, Sprague and Sadeh (2012) reported that psychopaths displayed blunted responding to negative emotion words, while offenders with antisocial personality disorder indicated enhanced processing of negative words and showed decrease behavioural inhibitions. Domes, Mense, Vohs and Habermeyer (2012) found that offenders with childhood maltreatment specifically showed stronger violence related attentional bias as compared to non-maltreated offenders. As a result, these authors concluded that enhanced attention to violence-related stimuli in adult criminal offenders is associated with adverse developmental experiences and delinquency, but to a lesser extent with antisocial traits.

Johnson, Cohen Smailes, Kasen, Oldham, Skodol and Brook (2000) found that persons with cluster A and cluster B personality disorder symptoms, specifically paranoid, narcissistic and passive aggressive personality disorder symptoms according to the DSM-IV, were more likely to commit violent acts during early adolescent and adulthood compared to other adolescents without these symptoms. Similarly, Howard, McCarthy, Huband and Duggan (2013) studied the role of antisocial and or borderline personality disorder comorbidity, substance dependence and severe childhood conduct disorder in the re-offending of forensic patients released from a secure care facility. These authors suggested that the externalising phenotype exists and that it is manifested in developmental trajectory from severe childhood conduct disorder through early onset substance abuse to adult antisocial and or borderline personality disorder comorbidity, which may increase the risk of antisocial behaviour in general and criminal recidivism in particular. Furthermore, the researchers reported that these patients took significantly less time to re-offend. They found a high rate of substance misuse and substance related violence in individuals with antisocial and borderline personality comorbidity. These authors concluded that sound assessments of personality, inclusive of a detailed history of childhood conduct disorder as well as adolescent and adult substance misuse are likely to yield sufficient information to predict the risk of recidivism. There is a need for specific alcohol directed interventions (Howard et al., 2013). Swanson et al., (1994) reported significant comorbidity between antisocial personality disorder and many Axis I conditions, with substance misuse being the most common disorder cooccurring with antisocial personality disorder. Similarly, Black, Gunter, Loveless and Sieleni

(2010) conducted a study focusing on antisocial personality disorder in incarcerated offenders and investigated their psychiatric morbidity and quality of life. These authors found that 35.3 per cent of their perticipants met the criteria for antisocial personality disorder. Furthermore, they found that antisocial personality disorder was equally diagnosed in both men and women. Among those with the diagnosis of antisocial personality disorder, higher rates of mood, anxiety, substance abuse, psychotic, somatoform disorders, borderline personality disorder and attention deficit hyperactivity disorder were found. These authors found that antisocial personality disorder was associated with comorbid disorders, high suicide risk and impaired quality of life.

The MMPI-II results showed that the criminal offender group reported more antisocial practices compared to the clinical offender group. Research has shown that antisocial personality disorder is common in prison settings. Surveys of prisoners worldwide indicate a prevalence of antisocial personality disorder of 47 per cent for men and 21 per cent for women (Fazel & Danesh, 2002).

The results of the study indicate that dissociative experiences were statistically significant suggesting that dissociation was a strong discriminator of whether one is a criminal or clinical offender. The results indicate that dissociation was more commonly reported among criminal offenders as compared to clinical offenders. It is hypothesized that criminal offenders may report dissociation more than clinical offenders due to high rates of exposure to abuse and neglect in their early life experiences. Dissociation symptoms are often associated with experiences of trauma such as abuse and neglect. Davies and Frawley (1997) reported that most patients with dissociative features had experienced a lack of family support and disrupted relationships. In the present study, the criminal offender group reported a high rate of homelessness, lack of affectionate bonds, insecure attachment and distrust. These results would be consistent with the

work of Davies et al., (1992) in suggesting that disrupted family relationships, poor community support and adverse living conditions are associated with high rates of dissociation.

The results of the present study showed more antisocial tendencies and dissociative behaviour among the criminal offender group. Poythress, Skeem, Lilienfeld and Scott (2006) postulated that like psychopathy, dissociative symptoms are also likely to result from abuse and neglect. However, there has been a lack of consensus around this area. Some literature suggests that abuse relates primarily to the affective symptoms of psychopathy with dissociative experiences mediating this relationship, whilst others have suggested that abuse more directly affects the impulsive lifestyle features of psychopathy (Marshall & Cooke, 1999; Jaffee et al., 2004; Daversa, 2010). Poythress et al., (2006) conducted a retrospective study among 615 male offenders, who had completed a self-report measure on childhood abuse, Dissociative Experience Scale and Hare's (2003) Psychopathy Checklist-Revised. These authors found that abuse exerted no direct or indirect effect on the core interpersonal and affective features of psychopathy and that it was directly related to the facet of psychopathy associated with an impulsive and irresponsible lifestyle. One further hypothesis is that the criminal offenders could have reported more dissociative symptoms hoping that this would make a difference with regards to personal culpability and to sentencing.

The results of the present study further indicate that the majority of the participants from both the clinical and criminal offender groups reported a presentation of an insecure attachment style. The finding of the present study is that a dismissive attachment style was statistically significant and the strongest predictor of engaging in criminal activity. This is consistent with a study conducted by Frodi, Dernevik, Sepa and Philipson (2001) who conducted research investigating current

mental representations of early attachment relationships in 24 psychopathic criminal offenders incarcerated in a forensic psychiatric hospital or a medium security prison. These authors found an extensive over-representation of individuals who were dismissive of attachment and attachment related experiences close to three times as many as in the normal population. They were observed to have insecure attachment styles, unresolved early abuse or trauma and most of them reported a rejecting father figure and an idealised and emotionally warm mother. Similarly, Fonagy et al., (1997) used the Adult Attachment Interview with 22 prisoners who had been diagnosed with a psychiatric disorder and a group of matched non-prisoners with comparable diagnoses and controls. They found that among the prisoners, 36 per cent were classified as presenting with a dismissive attachment style and 36 per cent classified as unresolveddisorganised with regard to early abuse or trauma. In the non-prisoner group, the rate of dismissive attachment was much lower than that of the prisoner group. The results in the present study show that dismissive attachment style was commonly found in both the clinical and criminal offender groups. Adults defensive dismissal of the importance of attachment relationships, about which negative expectations are held, may appear as both sequelae of severe adolescent pathology and correlates of adult symptoms such as antisocial behaviour that have been linked to negative expectations about oneself in relationships (Allen, Leadbeater & Aber, 1994). Dozier (1990) reported that negative expectations of self and others in social relationships or the distorted patterns of information processing that accompany insecure attachment organisations may enhance the likelihood of developing any range of pathologies, perhaps by increasing social conflicts or reducing available social support. This is consistent with the study conducted by Allen, Hauser & Borman-Spurrell (1996) who found that adults with dismissive attachment organisations reported more criminal behaviour compared to the adults with secure attachment styles.

A fearful attachment style was marginally significant as a predictor of a person's likelihood to engage in criminal behaviour. A negative relationship was also observed, suggesting that the less comfortable one is with being close to and depending on others, the more higher the risk of engaging in criminal behaviour. This is consistent with results in the current study where individuals who were homeless were more likely to engage in criminal behaviour. Similarly, marriage seemed to be a protective factor against engaging in criminal activity, as it implied a capacity for secure attachment style. Preoccupied attachment style was not significant, suggesting that it was the weakest predictor of a person's likelihood to engage in criminal behaviour. Given that insecure attachment is often noted in disrupted or dysfunctional families, it is not surprising that participants in the current study presented with insecure attachment.

The role of the mental illness or criminal behaviour in further straining already insecure relationships cannot be underestimated. Similarly, Booth, Clarke-Stewart, McCortney, Owen and Vandell (2000) reported that children of divorce often have trouble adapting to different stages of their lives because of their experiences with broken or detached bonds, and that the fact that they have no accurate template for successful relationships to replicate in their lives makes adaptation more difficult. Secure attachment style appeared to be a protective factor against criminal offending. A negative relationship was observed, suggesting that the more secure one is, the less likely it is that one would engage in criminal behaviour. Research has shown that secure attachment facilitates the development of mental capacities that both reduce the motivation for criminal behaviour and inhibit the individual's potential to commit acts of aggression (Fonagy, Target, Steele & Steele, 1997). The current study appears to support these research findings in that the high rates of insecure attachment were accompanied by high levels of homelessness, lack of family ties and poor social and community support.

Multiple studies have demonstrated that parents' attachment status will predict not only whether a child will be securely attached but also the precise attachment style category (Fonagy, 2001). The caregiver's capacity to observe the infant's intentional state and internal world appears to influence the development of secure attachment in the child. Mentalisation, which is the capacity to understand one's own and others' thinking as representational in nature and that one's own and others' behaviour is motivated by internal states such as thoughts and feelings, is a central concept (Fonagy, 1998). Fonagy and Target (2003) suggested that disorganised attachment insecurity is a vulnerability factor for later psychiatric disturbance and that attachment security can serve as a protective factor against adult psychopathology. Approximately 65per cent of children in the general population are classified as having a secure attachment style. The results of the present study indicate that 98 per cent (n=98) of participants from both the clinical and criminal offender group reported insecure attachment. This finding is significantly above the expected norm of secure attachment in the general population.

Timmerman and Emmelkamp (2006) conducted a study on the relationship between attachment styles and cluster B personality disorders in prisoners and forensic inpatients. These authors found that forensic inpatients and prisoners reported more insecure attachment styles as compared to the general population, particularly fearful attachment styles. Furthermore, the authors found that antisocial personality disorder was associated with dismissive attachment style. Similarly, the results from the present study indicate that there were no significant differences between the clinical and criminal offender group with regards to insecure attachment. The majority of the participants in both clinical and criminal offender group reported insecure attachment styles.

In summary, the current study shows the mean age of 33.7 years to 36.7 years for both criminal and clinical offender groups. Most of the participants in the study were Black participants and only four females were included among the clinical offender group. There is evidence that poor schooling, unemployment, being homeless and low socio-economic status served as risk factors to criminal behaviour, whilst being married served as a protective factor against criminality. Consistent with global trends, young black males were more likely to commit violent crimes whilst there was also evidence of increase in criminal behaviour among the females, possibly as a result of transformation and social pressures. Clinical offenders tended to commit more violent crimes.

The study showed that the presence of major psychiatric diagnosis such as schizophrenia and substance abuse served as risk factors for committing a violent crime. This was consistent with the literature that a diagnosis of substance abuse as a comorbid diagnosis to major psychiatric disorder such as schizophrenia increased the risk of engaging in criminal behaviour or committing a violent crime. Of note was that women tended to commit non-violent crimes and receive shorter sentences, whilst males tended to commit violent crimes such as murder and were convicted for longer periods. Furthermore, higher rates of recidivism were found among clinical offenders as compared to criminal offenders. The longer sentences in the criminal offender group could serve as a preventative factor. This means that if they are in prison for longer period, they would not be able to commit other crimes. Non-compliance, poor adherence to treatment and poor management of the patient in the form of limited resources, and limited community support structures are all linked to the high rates of recidivism among the clinical offender group.

There was evidence of high levels of stress among the clinical offender group as compared to the criminal offender group. In contrast to global trends that show a strong association between childhood trauma and criminal behaviour, the results of the current study did not show childhood trauma as a significant factor in discriminating between criminal or clinical offender. Furthermore, past victimisation as an adult whether direct or indirect was also not a significant factor in discriminating between the two groups under study. Childhood trauma, violence, exposure to violence and past victimisation were reported high by both criminal and clinical offender groups, indicating that these traumatic events could be a strong contributing factor with regards to the likelihood of engaging in criminal behaviour in general.

There was evidence of high levels of defensiveness among the criminal offender group as compared to the clinical offender group in the forensic hospital setting. In addition, the clinical offenders reported more psychological problems, whilst criminal offenders reported more antisocial behaviour, violence and dissociative experiences. Insecure attachment, particularly the dismissive attachment style was statistically significant and the strongest predictor of a person's likelihood to engage in criminal behaviour. Secure attachment style was found to be a protective factor against criminal behaviour.

12.2 LIMITATIONS OF THE STUDY

The sample in the current study utilised convenient sampling and it meant that participants involved in the study were the ones who were admitted at the time of data collection. Participation was through voluntary consent and those who refused consent or participation could have possibly represented a different group. The study included only four female forensic patients and ninety six male offenders. A longer term study with gender representation of female offenders could allow for further questioning with regards to gender issues. The study involved data that had to be collected from the files, such as patient diagnosis, criminal records and medication. In some cases, the personality disorders were not always clearly documented. The clinical records had very limited diagnoses of axis II disorders. It seemed not to be a true indication of the personality disorders that exist among clinical offenders. This could be related to the fact that most of the clinical offenders were being treated for axis I disorders and the files reflected this focus. Equally, it is also possible that the majority of the clinical offenders who had only the diagnosis of personality disorder were sent to prison for prosecution. To some extent the use of MMPI-II to assess personality pathology in this study, ameliorated this limitation. Information such as the presence of comorbid diagnoses may not have been complete. However, the strength of the clinical information from the files is that clinical diagnosis is available from an accredited professional in addition to the self-report of the participants.

Questionnaires were used in the present study. It would be useful to include data such as the length of hospitalized stay for the participants. It may be that length of stay would be correlated with more severe pathology. Discriminating between mental offenders who were inpatients and those who were granted leave of absence may have given insights to social re-adjustment issues. This would have required a larger sample than the present study of these groupings. Future research is necessary on this area and could look at the effects of medication as well. The MMPI-II could be perceived as a lengthy test, and the forensic patients or clinical offenders could have struggled due to concentration difficulties as part of the mental illness. This was, however, taken into account during interpretation and the results were interpreted with caution. While self-report measures give information on self-perceived experiences, they are vulnerable to subjectivity.

Observational measures, while less reliant on self-report are also vulnerable to the subjectivity of the observer. It may be prudent for a combination of measures to be used.

The strength of the study is that it is the first of its kind in South Africa in which large groups of clinical and criminal offenders were compared across the variables of stressful life events, traumatic experiences, dissociative experiences, personality profiles, attachment styles and the types of crimes committed.

12.3 FUTURE RESEARCH CONSIDERATIONS

Future research with bigger samples including a specific consideration of subsamples of female gender is necessary. Further studies investigating the role of medication and current mental state in the clinical profiles and presentations of clinical offenders may also prove useful. More research focusing on issues relating to the involvement of families in the treatment and management is indicated. This could involve a specific focus on attachment issues with family and community as well as the relationships with the quality of treatment team. Similarly, research looking at family and community involvement as well as the criminal offenders' relationship with the prisons and the staff involved may be useful in providing information that could assist with reintegration and prevention of recidivism as well as being part of rehabilitation process. It may also assist with assessment and screening of the prisoners to ensure that those in need of psychological and psychiatric services are assisted. Research on the impact of DSM 5 on forensic psychology and / or psychiatry is of importance. DSM 5 has collapsed Axis I, II and III diagnoses from the DSM-IV. Although this may be useful for neuropsychiatry, it may have serious implications for practice of forensic psychology and / or psychiatry. Although it would be useful to consider both the DSM IV and V categorisations of the disorders, it may not always be clear within the criminal justice system, which relies heavily on the past criminal behaviour in terms of making decisions and where change is likely to be met with resistance. The intention of the DSM 5 is to prioritise the principal diagnosis, which is the focus of treatment. This would include psychiatric illness, personality disorder or mental illness.

Although the DSM-5 diagnostic criteria and text are primarily designed to assist clinicians in conducting clinical assessment, case formulation, and treatment planning, DSM-5 is also used as a reference for the courts and attorneys in assessing the forensic consequences of mental disorders. As a result, it is important to note that the definition of mental disorder included in DSM-5 was developed to meet the needs of clinicians, public health professionals, and research investigators rather than all of the technical needs of the courts and legal professionals. It is also important to note that DSM-5 does not provide treatment guidelines for any given disorder.

When used appropriately, diagnoses and diagnostic information can assist legal decision makers in their determinations. For example, when the presence of a mental disorder is the predicate for a subsequent legal determination (e.g., involuntary civil commitment), the use of an established system of diagnosis enhances the value and reliability of the determination. By providing a compendium based on a review of the pertinent clinical and research literature, DSM-5 may facilitate legal decision makers' understanding of the relevant characteristics of mental disorders. The literature related to diagnoses also serves as a check on ungrounded speculation about mental disorders and about the functioning of a particular individual. Finally, diagnostic information about longitudinal course may improve decision making when the legal issue concerns an individual's mental functioning at a past or future point in time. As with any new classification system, the DSM 5 will need to be used and tested in future research to assess its clinical applicability. Research in this area is of importance. However, the use of DSM-5 should be informed by an awareness of the risks and limitations of its use in forensic settings. When DSM-5 categories, criteria, and textual descriptions are employed for forensic purposes, there is a risk that diagnostic information will be misused or misunderstood. These dangers arise because of the imperfect fit between the questions of ultimate concern to the law and the information contained in a clinical diagnosis. In most situations, the clinical diagnosis of a DSM-5 mental disorder such as intellectual disability (intellectual developmental disorder), schizophrenia, major neurocognitive disorder, gambling disorder, or paedophilic disorder does not imply that an individual with such a condition meets the legal criteria for the presence of a mental disorder or a specified legal standard (e.g., for competence, criminal responsibility, or disability). For the latter, additional information is usually required beyond that contained in the DSM-5 diagnosis, which might include information about the individual's functional impairments and how these impairments affect the particular abilities in question. It is precisely because impairments, abilities, and disabilities vary widely within each diagnostic category that the assignment of a particular diagnosis does not imply a specific level of impairment or disability.

Finally, the need for more research based on the South African context in the field of forensic psychology and psychiatry is essential in order to provide appropriate services for the forensic population.

CHAPTER 13

13.1 REFERENCES

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CHAPTER 14

APPENDICES

THE RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS, PERSONALITY PROFILE, DISSOCIATIVE EXPERIENCES, ATTACHMENT STYLES AND THE TYPES OF CRIMES COMMITTED AMONG THE MENTALLY ILL OFFENDERS AND CRIMINAL OFFENDERS IN THE SOUTH AFRICAN CONTEXT.

PARTICIPANT'S INFORMATION SHEET

Dear Participant

I am Mrs. Zama Radebe, a clinical psychologist currently studying towards PhD at the University of Witwatersrand. I am conducting a research study into the above topic and would like to invite you to participate in the study by completing the questionnaires.

The Directorate of the Department of Health, University of Witwatersrand, and the Directorate of Correctional Services, where the study will be conducted have approved the study and its procedures. The aim of the study is to investigate various factors that may lead to criminal behaviour and how these may present in terms of the type or the nature of crime committed. It aims to improve understanding of the mentally ill offenders and criminal offenders and to investigate possible differences in types of crimes committed among both the groups under study.

The study requires that you complete questionnaires as honestly as possible. Information obtained from the questionnaires will be kept confidential. Participation in the study is voluntary. If you choose not to join or having joined choose to withdraw, you may do so and you will not be penalised. Results of the study will be made available to you on request. There are no financial benefits for participating in the study. Your participation may however help to improve understanding of both the mentally ill offenders and criminal offenders, which could further inform future treatment and prevention models.

Your participation will be greatly appreciated.

Should you require more information or have any queries, please do not hesitate to contact me on 011 4884481 / 0822944491.

Yours faithfully Mrs Zama Radebe

THE RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS, PERSONALITY PROFILE, DISSOCIATIVE EXPERIENCES, ATTACHMENT STYLES AND THE TYPES OF CRIMES COMMITTED AMONG THE MENTALLY ILL OFFENDERS AND CRIMINAL OFFENDERS IN THE SOUTH AFRICAN CONTEXT.

PARTICIPANT'S CONSENT FORM

Participant's signature and date

.....

Legal guardian's signature and date

I Zama Radebe, have explained this study to the above participant and have sought his or her understanding for informed consent.

Researcher's signature and date

| 1. Age | | | | | | |
|---------------------------|---------------------------------------|--|-----------------|--|-------------------|---------|
| 2. Gender | Male | J Female | | | | |
| 3. Marital Status: | Single Married | Widowed Separ | ated Divorced | l. Circle your a | inswer. | |
| 4. Language | | <u> </u> | | | | |
| 5. Race | | | | | D. Yak | |
| 6. Last Job Held | | 18 4413 LI PULIVI I I PULIVI I I I I I I I I I I I I I I I I I I | | | | |
| 7. Highest Standar | d Passed: - | <u>.</u> | | | | |
| 8. Tertiary Qualific | | | | 1914 M 66 1917 M 101 M | | |
| 9. Number of Child | | | | het het het het die Kale has het | | |
| 10. Offense Comm | | · · · · | · | | | · . |
| | | • • | | * | · · | |
| 11. Sentence Giver | | , | | | | |
| 12. Is this first time | in prison? Yes | <u>s</u> or No | · . | | | |
| 13. If No, What was | the previous | offense committe | ed? | | | - |
| 14. Sentence given | for past offen | ce: | | | - 444 4111 | |
| 15. Do you have a | Home? | Yes | No | | | |
| 16. If yes, to questi | on 16, how ma | any people are liv | ing in your ho | usehold includ | ling yourse | lf? |
| 17. Is your home in | Urban Areas | or Rural Areas | ? Circle your a | inswer. | 1 | |
| 18. Is the home Ow | ned or Rente | d? Circle your ar | iswer. | | | |
| 19. What is the esti | mated value o | f the house? | | | | · · · |
| 20. Tick your level o | of income per | month prior to be | ing committee | d in the hospita | al or incarc | eration |
| Less than R1000 | · · · · · · · · · · · · · · · · · · · | | | · | | |
| R1001 - R2000 | | | | | | · . · |
| R2001 - R4000 | | | | | | |
| R4001 – R6000 | · · · · · · · · · · · · · · · · · · · | | | | | |
| R6001 - R8000 | | | | | | |
| R8001 – R10000 | | | | | | |
| R10001 and above | | | | · | | |

BIOGRAPHICAL DETAILS QUESTIONNAIRE

SOCIAL READJUSTMENT RATING SCALE

The items listed below refer to events that have taken place within the last year. Next to the stressful life event, there is a value attached to each stress unit. Please circle the value that is next to the stressful life event that has occurred to you in the past year. **Only** circle those that you have experienced **last year**.

| 1. Death of Spouse | 100 |
|---|-----|
| 2. Divorce | 73 |
| 3. Marital Separation | 65 |
| 4. Jail Term | 63 |
| 5. Death of a Close family member | 63 |
| 6. Personal Injury or Illness | 53 |
| 7. Marriage | 50 |
| 8. Fired at work | 47 |
| 9. Marital Reconciliation | 45 |
| 10. Retirement | 45 |
| 11. Change in health of family member | 44 |
| 12. Pregnancy | 40 |
| 13. Sex Difficulties | 39 |
| 14. Gain of a new family member | 39 |
| 15. Business Re-adjustments | 39 |
| 16. Change in Financial State | 38 |
| 17. Death of a close friend | 37 |
| 18. Change to a different line of work | 36 |
| 19. Change in number of arguments with spouse | 35 |
| 20. Mortgage over R200 000.00 | 31 |
| 21. Foreclosure of Mortgage | 30 |
| 22. Change in responsibilities at work | 29 |
| 23. Son or Daughter leaving home | 29 |
| 24. Trouble with in-laws | 29 |
| 5. Outstanding Personal Achievements | 28 |
| 6. Wife begins or stops work | 26 |
| 7. Begin or end school | 26 |
| 8. Change in Living conditions | 25 |

| 13. Minor violations of law | 11 |
|---|----|
| folidays | 12 |
| . Vacation | 13 |
| 10. Change in eating habits | 15 |
| 39. Change in number of family get together | 15 |
| 38. Change in sleeping habits | 16 |
| 37. Loan less than R50,000.00 | 17 |
| 36. Change in social activities | 18 |
| 35. Change in religious activities | 19 |
| 34. Change in recreation | 19 |
| 33. Change in school | 20 |
| 32. Change in residence | 20 |
| 31. Change in work hours or conditions | 20 |
| 30. Trouble with boss | 23 |
| 29. Revision of Personal Habits | 24 |

5

:

STRESSFUL LIFE EVENTS SCREENING QUESTIONNAIRE - REVISED

The items listed below refer to events that may have taken place at <u>any point in your</u> <u>entire life</u>, including early childhood. **If an event or ongoing situation occurred more than once, please record all pertinent information about additional events on the last page of this questionnaire.** (Please print or write neatly).

| 1. | Have you | ever had | a life-threatening illness? | |
|----|---------------------|---------------|--|--|
| | No | Yes | If yes, at what age? | |
| Dι | iration of II | lness | | |
| De | escribe spe | cific illnes | S | |
| 2. | Were you | ı ever in a | life-threatening accident? | |
| | No | Yes | If yes, at what age? | |
| De | escribe acc | ident | | |
| | | | Who? (Relationship to you) | |
| W | hat physica | al injuries o | lid you receive? | |
| W | ere you ho | spitalized | overnight? No Yes | |
| | Was phys mugging | | e or a weapon ever used against you in a robbery | |
| | No | Yes | If yes, at what age? | |
| Ho | ow many p | erpetrators | ? | |
| D€ | | | (e.g., restrained, shoved) or weapon used against you. | |
| Di | d anyone c | | | |
| W | ho? | | | |
| W | hat injuries | s did you re | eceive? | |
| W | as your life | e in danger | ? | |
| | | | family member, romantic partner, or <u>very close</u> f accident, homicide, or suicide? | |
| | No | Yes | If yes, how old were you? | |

| How did this person die? |
|--|
| Relationship to person lost |
| In the year before this person died, how often did you see/have contact with him/her? |
| Have you had a miscarriage? No Yes If yes, at what age? |
| 5. At any time, has anyone (parent, other family member, romantic partner, stranger or someone else) ever <u>physically forced</u> you to have intercourse, or to have oral or anal sex against your wishes, or when you were helpless, such as being asleep or intoxicated? |
| No Yes If yes, at what age? |
| If yes, how many times? 1, 2-4, 5-10, more than 10 |
| If repeated, over what period? 6 mo. or less, 7 mos2 yrs, more |
| than 2 yrs. but less than 5 yrs, 5 yrs. or more |
| Who did this? (Specify stranger, parent, etc.) |
| Has anyone else ever done this to you? No Yes |
| 6. Other than experiences mentioned in earlier questions, has anyone ever touched private parts of your body, made you touch their body, or tried to make you to have sex against your wishes? |
| No Yes If yes, at what age? |
| If yes, how many times? 1, 2-4, 5-10, more than 10 |
| If repeated, over what period? 6 mo. or less, 7 mos2 yrs, more |
| than 2 yrs. but less than 5 yrs, 5 yrs. or more |
| Who did this? (Specify sibling, date, etc.) |
| ······································ |
| What age was this person? |
| |
| What age was this person? |
| What age was this person? Has anyone else ever done this to you? No Yes 7. When you were a child, did a parent, caregiver or other person ever slap you |

| If repeated, over what period? 6 mo. or less, 7 mos 2 yrs, more |
|---|
| than 2 yrs. but less than 5 yrs, 5 yrs. or more |
| Describe force used against you (e.g., fist, belt) |
| Were you ever injured? If yes, describe |
| Who did this? (Relationship to you) |
| Has anyone else ever done this to you? No Yes |
| 8. As an adult, have you ever been kicked, beaten, slapped around or otherwise physically harmed by a romantic partner, date, family member, stranger, or someone else? |
| No Yes If yes, at what age? |
| If yes, how many times? 1, 2-4, 5-10, more than 10 |
| If repeated, over what period? 6 mo. or less, 7 mos 2 yrs, more |
| than 2 yrs. but less than 5 yrs , 5 yrs. or more |
| Describe force used against you (e.g., fist, belt) |
| Were you ever injured? If yes, describe |
| Who did this? (Relationship to you) |
| If sibling, what age was he/she |
| Has anyone else ever done this to you? No Yes |
| 9. Has a parent, romantic partner, or family member repeatedly ridiculed you, put you down, ignored you, or told you were no good? |
| No Yes If yes, at what age? |
| If yes, how many times? 1, 2-4, 5-10, more than 10 |
| If repeated, over what period? 6 mo. or less, 7 mos 2 yrs, more |
| than 2 yrs. but less than 5 yrs , 5 yrs. or more |
| Who did this? (Relationship to you) |
| If sibling, what age was he/she |
| 3 |

| · | | his to you? NoYes |
|--------------------------------------|---------------------------------|--|
| 10. Other thar weapon like a | | nces already covered, has anyone ever <u>threatened</u> you with ? |
| No | Yes | If yes, at what age? |
| If yes, how mar | ny times? 1 | , 2-4, 5-10, more than 10 |
| If repeated, ove | er what period | ? 6 mo. or less, 7 mos 2 yrs, more |
| than 2 y | rs. but less tha | an 5 yrs, 5 yrs. or more |
| Describe nature | e of threat | |
| Who did this? (| Relationship to | o you) |
| Has anyone els | se ever done t | this to you? NoYes |
| 11. Have you Sexually or ph | | esent when another person was killed? Seriously injured? aulted? |
| No | Yes | _ If yes, at what age? |
| Please describ | e what you wit | tnessed |
| Was your own | life in danger? | ? |
| 12. Have you life was in dar | ever been in nger (e.g., inv | any other situation where you were seriously injured or you volved in military combat or living in a war zone)? |
| No | _ Yes | |
| lf yes, at what | age? | Please describe. |
| 13. Have you horrifying, or No | one in which | any other situation that was extremely frightening or you felt extremely helpless, that you haven't reported? |
| | | Please describe. |
| | | |
| | | |

DISSOCIATIVE EXPERIENCE SCALE

This questionnaire consists of twenty-seven questions about experiences that you may have in your daily life. I am interested in how often you have these experiences. It is important however that you show how often these experiences happen to you when you are not under the influence of alcohol or drugs. To answer these questions, please determine to what degree the experiences described in the questions applies to you and mark the line with a vertical slash at the appropriate place, as shown in the example below.

Example:

Some people have the experience of driving a car and suddenly realizing that they
do not remember what has happened during all or part of the trip. Mark the line to
show what percentage of the time this happens to you.

0% I.....I 100%

2. Some people find that sometimes they are listening to someone talk and they suddenly realise that they did not hear part or all of what was just said. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

 Some people have the experience of finding themselves in a place and having no idea how they got there. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

4. Some people have the experience of finding themselves dressed in clothes that they do not remember putting on. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

5. Some people have the experience of finding new things among their belongings that they do nor remember buying. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

6. Some people sometimes find that they are approached by people that they do not know who call them by another name or insist they have met them before. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

7. Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

8. Some people are told that they sometimes do not recognise friends or family members. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

 Some people find that they have no memory for important events in their lives (for example, a wedding or graduation). Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

10. Some people have the experience of being accused of lying when they do not think that they have lied. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

11. Some people have the experience of looking in a mirror and not recognizing themselves. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

12. Some people sometimes have the experience of feeling that other people, objects, and the world around them are not real. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

13. Some people sometimes have the experience of feeling that their body does not seem to belong to them. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

14. Some people have the experience of sometimes remembering a past event so vividly that they feel as if they are reliving the event. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

- 15. Some people have the experience of not being sure whether things that they remember happening really did happen or whether they just dreamt them. Mark the line to show what percentage of the time this happens to you.
 - 0% I.....I 100%
- 16. Some people have the experience of being in a familiar place but finding it strange and unfamiliar. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

17. Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

18. Some people sometimes find that they become so involved in a fantasy or daydream that it feels as though it were really happening to them. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

19. Some people find that they sometimes are able to ignore pain. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

20. Some people find that they sometimes sit staring off into space, thinking of nothing and are not aware of the passage of time. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

21. Some people sometimes find that when they are alone they talk out loud to themselves. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

22. Some people find that in one situation they may act so differently compared with another situation that they feel almost as if they were two different people. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

23. Some people sometimes find that in certain situations they are able to do things they are able to do things with amazing ease and spontaneity that would usually be difficult for them (for example, sports, work, social situations, etc.). Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

24. Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that thing (for example, not knowing

whether they have just mailed a letter or have just thought about mailing it). Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

25. Some people sometimes find writings, drawings, or notes among their belongings that they must have done but cannot remember doing. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

26. Some people sometimes find that they hear voices inside their head that tell them to do things or comment on things that they are doing. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

27. Some people sometimes feel as if they are looking at the world through a fog so that people and objects appear far away or unclear. Mark the line to show what percentage of the time this happens to you.

0% I.....I 100%

ATTACHMENT STYLES QUESTIONNAIRE

Indicate how much you agree or disagree with each of the following items by rating them on this scale:

1=totally disagree

2=strongly disagree

3=slightly disagree

4=slightly agree

5=strongly agree

6=totally agree

| 1. Overall, I am a worthwhile person. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|----|---|---|---|---|---|
| 2. I am easier to get to know than most people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I feel confident that other people will be there | | | | | | |
| for me when I need them. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I prefer to depend on myself rather than other | ſ | | | | | |
| people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. I prefer to keep to myself. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. To ask for help is to admit that you are a | | | | | | |
| failure. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. People's worth should be judged by what the | у | | | | | |
| achieve. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. Achieving things is more important than | | | | | | |
| building relationships. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. Doing your best is more important than gettin | ıg | | | | | |
| on with others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. If you've got a job to do, you should do it no | | | | | | |
| matter who gets hurt. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. It's important to me that others like me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. It's important to me to avoid things that othe | er | | | | | |
| won't like. | 1 | 2 | 3 | 4 | 5 | 6 |

| 13. I find it hard to make a decision unless I k | now | | | | | |
|--|---------|-----|---|---|---|---|
| what other people think. | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. My relationships with others are generally | | | | | | |
| superficial. | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. Sometimes I think I am no good at all. | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. I find it hard to trust other people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. I find it difficult to depend on others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. I find that others are reluctant to get as cl | ose | | | | | |
| as I would like. | 1 | . 2 | 3 | 4 | 5 | 6 |
| 19. I find it relatively easy to get close to othe | r | | | | | |
| people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. I find it easy to trust others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. I feel comfortable depending on other peo | ople. 1 | 2 | 3 | 4 | 5 | 6 |
| 22. I worry that others won't care about me a | s | | | | | |
| much as I care about them. | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. I worry about people getting too close. | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. I worry that I won't measure up to other | | | | | | |
| people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. I have mixed feelings about being close | | | | | | |
| to others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 26. While I want to get close to others, I feel | | | | | | |
| uneasy about it. | 1 | 2 | 3 | 4 | 5 | 6 |
| 27. I wonder why people would want to | | | | | | |
| be involved with me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 28. It's very important to me to have a | | | | | | |
| close relationship. | 1 | 2 | 3 | 4 | 5 | 6 |
| 29. I worry a lot about my relationships. | 1 | 2 | 3 | 4 | 5 | 6 |
| 30. I wonder how I would cope without | | | | | | |
| someone to love me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 31. I feel confident about relating to others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. I often feel left out or alone. | 1 | 2 | 3 | 4 | 5 | 6 |

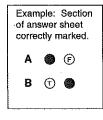
| 33. I often worry that I do not fit in with other | | | | | | |
|--|---|---|---|---|---|---|
| people. | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. Other people have their own problems, | | | | | | |
| so I don't bother them with mine. | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. When I talk over my problems with others, | | | | | | |
| I generally feel ashamed or foolish. | 1 | 2 | 3 | 4 | 5 | 6 |
| 36. I am too busy with other activities to put too | | | | | | |
| much time into relationships. | 1 | 2 | 3 | 4 | 5 | 6 |
| 37. If something is bothering me, others are | | ĩ | | | | |
| generally aware and concerned. | 1 | 2 | 3 | 4 | 5 | 6 |
| 38. I am confident that other people will like | | | | | | |
| and respect me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. I get frustrated when others are not | | | | | | |
| available when I need them. | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. Other people often disappoint me. | 1 | 2 | 3 | 4 | 5 | 6 |

DO NOT OPEN UNTIL TOLD TO DO SO

Minnesota Multiphasic Personality Inventory-2

This inventory consists of numbered statements. Read each statement and decide whether it is *true as applied to you* or *false as applied to you*.

You are to mark your answers on the answer sheet you have. Look at the example of the answer sheet shown at the right. If a statement is **true** or **mostly true** as applied to you, blacken the circle marked **T**. (See A at the right.) If a



statement is **false** or **not usually true** as applied to you, blacken the circle marked **F**. (See B at the right.) If a statement does not apply to you or if it is something that you don't know about, make no mark on the answer sheet. But try to give a response to every statement.

Remember to give your own opinion of yourself.

In marking your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet. Make your marks heavy and black. Erase completely any answer you wish to change. Do not make any marks on this booklet.

Remember, try to respond to every statement.

Now open the booklet and go ahead.

DO NOT MAKE ANY MARKS ON THIS BOOKLET.

- 1. I like mechanics magazines.
- 2. I have a good appetite.
- 3. I wake up fresh and rested most mornings.
- 4. I think I would like the work of a librarian.
- 5. I am easily awakened by noise.
- 6. My father is a good man, or (if your father is dead) my father was a good man.
- 7. I like to read newspaper articles on crime.
- 8. My hands and feet are usually warm enough.
- 9. My daily life is full of things that keep me interested.
- 10. I am about as able to work as I ever was.
- 11. There seems to be a lump in my throat much of the time.
- 12. My sex life is satisfactory.
- 13. People should try to understand their dreams and be guided by or take warning from them.
- 14. I enjoy detective or mystery stories.
- 15. I work under a great deal of tension.
- 16. Once in a while I think of things too bad to talk about.
- 17. I am sure I get a raw deal from life.
- 18. I am troubled by attacks of nausea and vomiting.
- 19. When I take a new job, I like to find out who it is important to be nice to.
- 20. I am very seldom troubled by constipation.
- 21. At times I have very much wanted to leave home.

- 22. No one seems to understand me.
- 23. At times I have fits of laughing and crying that I cannot control.
- 24. Evil spirits possess me at times.
- 25. I would like to be a singer.
- 26. I feel that it is certainly best to keep my mouth shut when I'm in trouble.
- 27. When people do me a wrong, I feel I should pay them back if I can, just for the principle of the thing.
- 28. I am bothered by an upset stomach several times a week.
- 29. At times I feel like swearing.
- 30. I have nightmares every few nights.
- 31. I find it hard to keep my mind on a task or job.
- 32. I have had very peculiar and strange experiences.
- 33. I seldom worry about my health.
- 34. I have never been in trouble because of my sex behavior.
- 35. Sometimes when I was young I stole things.
- 36. I have a cough most of the time.
- 37. At times I feel like smashing things.
- I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going."
- 39. My sleep is fitful and disturbed.
- 40. Much of the time my head seems to hurt all over.

- 41. I do not always tell the truth.
- 42. If people had not had it in for me, I would have been much more successful.
- 43. My judgment is better than it ever was.
- 44. Once a week or oftener I suddenly feel hot all over, for no real reason.
- 45. I am in just as good physical health as most of my friends.
- I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.
- 47. I am almost never bothered by pains over my heart or in my chest.
- 48. Most anytime I would rather sit and daydream than do anything else.
- 49. I am a very sociable person.
- 50. I have often had to take orders from someone who did not know as much as I did.
- 51. I do not read every editorial in the newspaper every day.
- 52. I have not lived the right kind of life.
- 53. Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep."
- 54. My family does not like the work I have chosen (or the work I intend to choose for my lifework).
- 55. I sometimes keep on at a thing until others lose their patience with me.
- 56. I wish I could be as happy as others seem to be.
- 57. I hardly ever feel pain in the back of my neck.

- 58. I think a great many people exaggerate their misfortunes in order to gain the sympathy and help of others.
- 59. I am troubled by discomfort in the pit of my stomach every few days or oftener.
- 60. When I am with people, I am bothered by hearing very strange things.
- 61. I am an important person.
- 62. I have often wished I were a girl. (Or if you are a girl) I have never been sorry that I am a girl.
- 63. My feelings are not easily hurt.
- 64. I enjoy reading love stories.
- 65. Most of the time I feel blue.
- 66. It would be better if almost all laws were thrown away.
- 67. I like poetry.
- 68. I sometimes tease animals.
- 69. I think I would like the kind of work a forest ranger does.
- 70. I am easily downed in an argument.
- 71. These days I find it hard not to give up hope of amounting to something.
- 72. My soul sometimes leaves my body.
- 73. I am certainly lacking in self-confidence.
- 74. I would like to be a florist.
- 75. I usually feel that life is worthwhile.
- 76. It takes a lot of argument to convince most people of the truth.
- 77. Once in a while I put off until tomorrow what I ought to do today.
- 78. I am liked by most people who know me.
- 79. I do not mind being made fun of.
- 80. I would like to be a nurse.

- 81. I think most people would lie to get ahead.
- 82. I do many things which I regret afterwards (I regret things more than others seem to).
- I have very few quarrels with members of my family.
- 84. I was suspended from school one or more times for bad behavior.
- 85. At times I have a strong urge to do something harmful or shocking.
- 86. I like to go to parties and other affairs where there is lots of loud fun.
- 87. I have met problems so full of possibilities that I have been unable to make up my mind about them.
- 88. I believe women ought to have as much sexual freedom as men.
- 89. My hardest battles are with myself.
- 90. I love my father, or (if your father is dead) I loved my father.
- 91. I have little or no trouble with my muscles twitching or jumping.
- 92. I don't seem to care what happens to me.
- 93. Sometimes when I am not feeling well I am irritable.
- 94. Much of the time I feel as if I have done something wrong or evil.
- 95. I am happy most of the time.
- 96. I see things or animals or people around me that others do not see.
- 97. There seems to be a fullness in my head or nose most of the time.
- 98. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right.
- 99. Someone has it in for me.

- 100. I have never done anything dangerous for the thrill of it.
- 101. Often I feel as if there is a tight band around my head.
- 102. I get angry sometimes.
- 103. I enjoy a race or game more when I bet on it.
- 104. Most people are honest chiefly because they are afraid of being caught.
- 105. In school I was sometimes sent to the principal for bad behavior.
- 106. My speech is the same as always (not faster or slower, no slurring or hoarseness).
- 107. My table manners are not quite as good at home as when I am out in company.
- 108. Anyone who is able and willing to work hard has a good chance of succeeding.
- 109. I seem to be about as capable and smart as most others around me.
- 110. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.
- 111. I have a great deal of stomach trouble.
- 112. I like dramatics.
- 113. I know who is responsible for most of my troubles.
- 114. Sometimes I am so strongly attracted by the personal articles of others, such as shoes, gloves, etc., that I want to handle or steal them, though I have no use for them.
- 115. The sight of blood doesn't frighten me or make me sick.
- 116. Often I can't understand why I have been so irritable and grouchy.
- 117. I have never vomited blood or coughed up blood.

- 118. I do not worry about catching diseases.
- 119. I like collecting flowers or growing house plants.
- 120. I frequently find it necessary to stand up for what I think is right.
- 121. I have never indulged in any unusual sex practices.
- 122. At times my thoughts have raced ahead faster than I could speak them.
- 123. If I could get into a movie without paying and be sure I was not seen I would probably do it.
- 124. I often wonder what hidden reason another person may have for doing something nice for me.
- 125. I believe that my home life is as pleasant as that of most people I know.
- 126. I believe in law enforcement.
- 127. Criticism or scolding hurts me terribly.
- 128. I like to cook.
- 129. My conduct is largely controlled by the behavior of those around me.
- 130. I certainly feel useless at times.
- 131. When I was a child, I belonged to a group of friends that tried to be loyal through all kinds of trouble.
- 132. I believe in a life hereafter.
- 133. I would like to be a soldier.
- 134. At times I feel like picking a fist fight with someone.
- 135. I have often lost out on things because I couldn't make up my mind soon enough.
- 136. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.

- 137. I used to keep a diary.
- 138. I believe I am being plotted against.
- 139. I would rather win than lose in a game.
- 140. Most nights I go to sleep without thoughts or ideas bothering me.
- 141. During the past few years I have been well most of the time.
- 142. I have never had a fit or convulsion.
- 143. I am neither gaining nor losing weight.
- 144. I believe I am being followed.
- 145. I feel that I have often been punished without cause.
- 146. I cry easily.
- 147. I cannot understand what I read as well as I used to.
- 148. I have never felt better in my life than I do now.
- 149. The top of my head sometimes feels tender.
- 150. Sometimes I feel as if I must injure either myself or someone else.
- 151. I resent having anyone trick me so cleverly that I have to admit I was fooled.
- 152. I do not tire quickly.
- 153. I like to know some important people because it makes me feel important.
- 154. I am afraid when I look down from a high place.
- 155. It wouldn't make me nervous if any members of my family got into trouble with the law.
- 156. I am never happy unless I am roaming or traveling around.
- 157. What others think of me does not bother me.

- 158. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things.
- 159. I have never had a fainting spell.
- 160. I liked school.
- 161. I frequently have to fight against showing that I am bashful.
- 162. Someone has been trying to poison me.
- 163. I do not have a great fear of snakes.
- 164. I seldom or never have dizzy spells.
- 165. My memory seems to be all right.
- 166. I am worried about sex.
- 167. I find it hard to make talk when I meet new people.
- 168. I have had periods in which I carried on activities without knowing later what I had been doing.
- 169. When I get bored I like to stir up some excitement.
- 170. I am afraid of losing my mind.
- 171. I am against giving money to beggars.
- 172. I frequently notice my hand shakes when I try to do something.
- 173. I can read a long while without tiring my eyes.
- 174. I like to study and read about things that I am working at.
- 175. I feel weak all over much of the time.
- 176. I have very few headaches.
- 177. My hands have not become clumsy or awkward.
- 178. Sometimes, when embarrassed, I break out in a sweat which annoys me greatly.

- 179. I have had no difficulty in keeping my balance in walking.
- 180. There is something wrong with my mind.
- I do not have spells of hay fever or asthma.
- 182. I have had attacks in which I could not control my movements or speech but in which I knew what was going on around me.
- 183. I do not like everyone I know.
- 184. I daydream very little.
- 185. I wish I were not so shy.
- 186. I am not afraid to handle money.
- 187. If I were a reporter I would very much like to report news of the theater.
- 188. I enjoy many different kinds of play and recreation.
- 189. I like to flirt.
- 190. My people treat me more like a child than a grown-up.
- 191. I would like to be a journalist.
- 192. My mother is a good woman, or (if your mother is dead) my mother was a good woman.
- 193. In walking I am very careful to step over sidewalk cracks.
- 194. I have never had any breaking out on my skin that has worried me.
- 195. There is very little love and companionship in my family as compared to other homes.
- 196. I frequently find myself worrying about something.
- 197. I think I would like the work of a building contractor.
- 198. I often hear voices without knowing where they come from.

- 199. I like science.
- 200. It is not hard for me to ask help from my friends even though I cannot return the favor.
- 201. I very much like hunting.
- 202. My parents often objected to the kind of people I went around with.
- 203. I gossip a little at times.
- 204. My hearing is apparently as good as that of most people.
- 205. Some of my family have habits that bother and annoy me very much.
- 206. At times I feel that I can make up my mind with unusually great ease.
- 207. I would like to belong to several clubs.
- 208. I hardly ever notice my heart pounding and I am seldom short of breath.
- 209. I like to talk about sex.
- 210. I like to visit places where I have never been before.
- I have been inspired to a program of life based on duty which I have since carefully followed.
- 212. I have at times stood in the way of people who were trying to do something, not because it amounted to much but because of the principle of the thing.
- 213. I get mad easily and then get over it soon.
- 214. I have been quite independent and free from family rule.
- 215. I brood a great deal.
- 216. Someone has been trying to rob me.
- 217. My relatives are nearly all in sympathy with me.

- 218. I have periods of such great restlessness that I cannot sit long in a chair.
- 219. I have been disappointed in love.
- 220. I never worry about my looks.
- 221. I dream frequently about things that are best kept to myself.
- 222. Children should be taught all the main facts of sex.
- 223. I believe I am no more nervous than most others.
- 224. I have few or no pains.
- 225. My way of doing things is apt to be misunderstood by others.
- 226. Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."
- 227. I don't blame people for trying to grab everything they can get in this world.
- 228. There are persons who are trying to steal my thoughts and ideas.
- 229. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.
- 230. I can be friendly with people who do things which I consider wrong.
- 231. I like to be with a crowd who play jokes on one another.
- 232. Sometimes in elections I vote for people about whom I know very little.
- 233. I have difficulty in starting to do things.
- 234. I believe I am a condemned person.
- 235. I was a slow learner in school.
- 236. If I were an artist I would like to draw flowers.
- 237. It does not bother me that I am not better looking.

- 238. I sweat very easily even on cool days.
- 239. I am entirely self-confident.
- 240. At times it has been impossible for me to keep from stealing or shoplifting something.
- 241. It is safer to trust nobody.
- 242. Once a week or oftener i become very excited.
- 243. When in a group of people I have trouble thinking of the right things to talk about.
- 244. Something exciting will almost always pull me out of it when I am feeling low.
- 245. When I leave home I do not worry about whether the door is locked and the windows closed.
- 246. I believe my sins are unpardonable.
- 247. I have numbness in one or more places on my skin.
- 248. I do not blame a person for taking advantage of people who leave themselves open to it.
- 249. My eyesight is as good as it has been for years.
- 250. At times I have been so entertained by the cleverness of some criminals that I have hoped they would get away with it.
- 251. I have often felt that strangers were looking at me critically.
- 252. Everything tastes the same.
- 253. I drink an unusually large amount of water every day.
- 254. Most people make friends because friends are likely to be useful to them.
- 255. I do not often notice my ears ringing or buzzing.

- 256. Once in a while I feel hate toward members of my family whom I usually love.
- 257. If I were a reporter I would very much like to report sporting news.
- 258. I can sleep during the day but not at night.
- 259. I am sure I am being talked about.
- 260. Once in a while I laugh at a dirty joke.
- 261. I have very few fears compared to my friends.
- 262. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.
- 263. I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer.
- 264. I have used alcohol excessively.
- 265. I am likely not to speak to people until they speak to me.
- 266. I have never been in trouble with the law.
- 267. I have periods in which I feel unusually cheerful without any special reason.
- 268. I wish I were not bothered by thoughts about sex.
- 269. If several people find themselves in trouble, the best thing for them to do is to agree upon a story and stick to it.
- 270. It does not bother me particularly to see animals suffer.
- 271. I think that I feel more intensely than most people do.
- 272. There never was a time in my life when I liked to play with dolls.
- 273. Life is a strain for me much of the time.

- 274. I am so touchy on some subjects that I can't talk about them.
- 275. In school I found it very hard to talk in front of the class.
- 276. I love my mother, or (if your mother is dead) I loved my mother.
- 277. Even when I am with people I feel lonely much of the time.
- 278. I get all the sympathy I should.
- 279. I refuse to play some games because I am not good at them.
- 280. I seem to make friends about as quickly as others do.
- 281. I dislike having people around me.
- 282. I have been told that I walk during sleep.
- 283. The person who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.
- 284. I think nearly anyone would tell a lie to keep out of trouble.
- 285. I am more sensitive than most other people.
- 286. Most people inwardly dislike putting themselves out to help other people.
- 287. Many of my dreams are about sex.
- 288. My parents and family find more fault with me than they should.
- 289. I am easily embarrassed.
- 290. I worry over money and business.
- 291. I have never been in love with anyone.
- 292. The things that some of my family have done have frightened me.
- 293. I almost never dream.
- 294. My neck spots with red often.

- 295. I have never been paralyzed or had any unusual weakness of any of my muscles.
- 296. Sometimes my voice leaves me or changes even though I have no cold.
- 297. My mother or father often made me obey even when I thought that it was unreasonable.
- 298. Peculiar odors come to me at times.
- 299. I cannot keep my mind on one thing.
- 300. I have reason for feeling jealous of one or more members of my family.
- 301. I feel anxiety about something or someone almost all the time.
- 302. I easily become impatient with people.
- 303. Most of the time I wish I were dead.
- 304. Sometimes I become so excited that I find it hard to get to sleep.
- 305. I have certainly had more than my share of things to worry about.
- 306. No one cares much what happens to you.
- 307. At times I hear so well it bothers me.
- 308. I forget right away what people say to me.
- 309. I usually have to stop and think before I act even in small matters.
- 310. Often I cross the street in order not to meet someone I see.
- 311. I often feel as if things are not real.
- 312. The only interesting part of newspapers is the comic strips.
- 313. I have a habit of counting things that are not important such as bulbs on electric signs, and so forth.
- 314. I have no enemies who really wish to harm me.

- 315. I tend to be on my guard with people who are somewhat more friendly than I had expected.
- 316. I have strange and peculiar thoughts.
- 317. I get anxious and upset when I have to make a short trip away from home.
- 318. I usually expect to succeed in things I do.
- 319. I hear strange things when I am alone.
- 320. I have been afraid of things or people that I knew could not hurt me.
- 321. I have no dread of going into a room by myself where other people have already gathered and are talking.
- 322. I am afraid of using a knife or anything very sharp or pointed.
- 323. Sometimes I enjoy hurting persons I love.
- 324. I can easily make other people afraid of me, and sometimes do for the fun of it.
- 325. I have more trouble concentrating than others seem to have.
- 326. I have several times given up doing a thing because I thought too little of my ability.
- 327. Bad words, often terrible words, come into my mind and I cannot get rid of them.
- 328. Sometimes some unimportant thought will run through my mind and bother me for days.
- 329. Almost every day something happens to frighten me.
- 330. At times I am all full of energy.
- 331. I am inclined to take things hard.
- 332. At times I have enjoyed being hurt by someone I loved.
- 333. People say insulting and vulgar things about me.

- 334. I feel uneasy indoors.
- 335. I am not unusually self-conscious.
- 336. Someone has control over my mind.
- 337. At parties I am more likely to sit by myself or with just one other person than to join in with the crowd.
- 338. People often disappoint me.
- 339. I have sometimes felt that difficulties were piling up so high that I could not overcome them.
- 340. I love to go to dances.
- 341. At periods my mind seems to work more slowly than usual.
- 342. While in trains, busses, etc., I often talk to strangers.
- 343. I enjoy children.
- 344. I enjoy gambling for small stakes.
- 345. If given the chance I could do some things that would be of great benefit to the world.
- 346. I have often met people who were supposed to be experts who were no better than I.
- 347. It makes me feel like a failure when I hear of the success of someone I know well.
- 348. I often think, "I wish I were a child again."
- 349. I am never happier than when alone.
- 350. If given the chance I would make a good leader of people.
- 351. I am embarrassed by dirty stories.
- 352. People generally demand more respect for their own rights than they are willing to allow for others.
- 353. I enjoy social gatherings just to be with people.

- 354. I try to remember good stories to pass them on to other people.
- 355. At one or more times in my life I felt that someone was making me do things by hypnotizing me.
- 356. I find it hard to set aside a task that I have undertaken, even for a short time.
- 357. I am quite often not in on the gossip and talk of the group I belong to.
- 358. I have often found people jealous of my good ideas, just because they had not thought of them first.
- 359. I enjoy the excitement of a crowd.
- 360. I do not mind meeting strangers.
- 361. Someone has been trying to influence my mind.
- 362. I can remember "playing sick" to get out of something.
- 363. My worries seem to disappear when I get into a crowd of lively friends.
- 364. I feel like giving up quickly when things go wrong.
- 365. I like to let people know where I stand on things.
- 366. I have had periods when I felt so full of pep that sleep did not seem necessary for days at a time.
- 367. Whenever possible I avoid being in a crowd.
- 368. I shrink from facing a crisis or difficulty.
- 369. I am apt to pass up something I want to do when others feel that it isn't worth doing.
- 370. I like parties and socials.

- 371. I have often wished I were a member of the opposite sex.
- 372. I am not easily angered.
- 373. I have done some bad things in the past that I never tell anybody about.
- 374. Most people will use somewhat unfair means to get ahead in life.
- 375. It makes me nervous when people ask me personal questions.
- 376. I do not feel I can plan my own future.
- 377. I am not happy with myself the way I am.
- 378. I get angry when my friends or family give me advice on how to live my life.
- 379. I got many beatings when I was a child.
- 380. It bothers me when people say nice things about me.
- 381. I don't like hearing other people give their opinions about life.
- 382. I often have serious disagreements with people who are close to me.
- 383. When things get really bad, I know I can count on my family for help.
- 384. I liked playing "house" when I was a child.
- 385. I am not afraid of fire.
- 386. I have sometimes stayed away from another person because I feared doing or saying something that I might regret afterwards.
- 387. I can express my true feelings only when I drink.
- 388. I very seldom have spells of the blues.
- 389. I am often said to be hotheaded.
- 390. I wish I could get over worrying about things I have said that may have injured other people's feelings.

- 391. I feel unable to tell anyone all about myself.
- 392. Lightning is one of my fears.
- 393. I like to keep people guessing what I'm going to do next.
- 394. My plans have frequently seemed so full of difficulties that I have had to give them up.
- 395. I am afraid to be alone in the dark.
- 396. I have often felt bad about being misunderstood when trying to keep someone from making a mistake.
- 397. A windstorm terrifies me.
- 398. I frequently ask people for advice.
- 399. The future is too uncertain for a person to make serious plans.
- 400. Often, even though everything is going fine for me, I feel that I don't care about anything.
- 401. I have no fear of water.
- 402. I often must sleep over a matter before I decide what to do.
- 403. People have often misunderstood my intentions when I was trying to put them right and be helpful.
- 404. I have no trouble swallowing.
- 405. I am usually calm and not easily upset.
- 406. I would certainly enjoy beating criminals at their own game.
- 407. I deserve severe punishment for my sins.
- 408. I am apt to take disappointments so keenly that I can't put them out of my mind.
- 409. It bothers me to have someone watch me at work even though I know I can do it well.
- 410. I am often so annoyed when someone tries to get ahead of me in a line of people that I speak to that person about it.

- 411. At times I think I am no good at all.
- 412. When I was young I often did not go to school even when I should have gone.
- 413. One or more members of my family are very nervous.
- 414. I have at times had to be rough with people who were rude or annoying.
- 415. I worry quite a bit over possible misfortunes.
- 416. I have strong political opinions.
- 417. I would like to be an auto racer.
- 418. It is all right to get around the law if you don't actually break it.
- 419. There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.
- 420. It makes me nervous to have to wait.
- 421. I am apt to pass up something I want to do because others feel that I am not going about it in the right way.
- 422. I was fond of excitement when I was young.
- 423. I am often inclined to go out of my way to win a point with someone who has opposed me.
- 424. I am bothered by people outside, on the streets, in stores, etc., watching me.
- 425. The man who had most to do with me when I was a child (such as my father, stepfather, etc.) was very strict with me.
- 426. I used to like to play hopscotch and jump rope.
- 427. I have never seen a vision.
- 428. I have several times had a change of heart about my lifework.

- 429. Except by doctor's orders I never take drugs or sleeping pills.
- 430. I am often sorry because I am so irritable and grouchy.
- 431. In school my marks in classroom behavior were quite regularly bad.
- 432. I am fascinated by fire.
- 433. When I am cornered I tell that portion of the truth which is not likely to hurt me.
- 434. If I was in trouble with several friends who were as guilty as I was, I would rather take the whole blame than give them away.
- 435. I am often afraid of the dark.
- 436. When a man is with a woman he is usually thinking about things related to her sex.
- 437. I am usually very direct with people I am trying to correct or improve.
- 438. I dread the thought of an earthquake.
- 439. I readily become one hundred percent sold on a good idea.
- 440. I usually work things out for myself rather than get someone to show me how.
- 441. I am afraid of finding myself in a closet or small closed place.
- 442. I must admit that I have at times been worried beyond reason over something that really did not matter.
- 443. I do not try to cover up my poor opinion or pity of people so that they won't know how I feel.
- 444. I am a high-strung person.
- 445. I have frequently worked under people who seem to have things arranged so that they get credit for good work but are able to pass off mistakes onto those under them.

- 446. I sometimes find it hard to stick up for my rights because I am so reserved.
- 447. Dirt frightens or disgusts me.
- 448. I have a daydream life about which I do not tell other people.
- 449. Some of my family have quick tempers.
- 450. I cannot do anything well.
- 451. I often feel guilty because I pretend to feel more sorry about something than I really do.
- 452. I strongly defend my own opinions as a rule.
- 453. I have no fear of spiders.
- 454. The future seems hopeless to me.
- 455. The members of my family and my close relatives get along quite well.
- 456. I would like to wear expensive clothes.
- 457. People can pretty easily change my mind even when I have made a decision about something.
- 458. I am made nervous by certain animals.
- 459. I can stand as much pain as others can.
- 460. Several times I have been the last to give up trying to do a thing.
- 461. It makes me angry to have people hurry me.
- 462. I am not afraid of mice.
- 463. Several times a week I feel as if something dreadful is about to happen.
- 464. I feel tired a good deal of the time.
- 465. I like repairing a door latch.
- 466. Sometimes I am sure that other people can tell what I am thinking.
- 467. I like to read about science.
- 468. I am afraid of being alone in a wide-open place.

- 469. I sometimes feel that I am about to go to pieces.
- 470. A large number of people are guilty of bad sexual conduct.
- 471. I have often been frightened in the middle of the night.
- 472. I am greatly bothered by forgetting where I put things.
- 473. The one to whom I was most attached and whom I most admired as a child was a woman (mother, sister, aunt, or other woman).
- 474. I like adventure stories better than romantic stories.
- 475. Often I get confused and forget what I want to say.
- 476. I am very awkward and clumsy.
- 477. I really like playing rough sports (such as football or soccer).
- 478. I hate my whole family.
- 479. Some people think it's hard to get to know me.
- 480. I spend most of my spare time by myself.
- 481. When people do something that makes me angry, I let them know how I feel about it.
- 482. I usually have a hard time deciding what to do.
- 483. People do not find me attractive.
- 484. People are not very kind to me.
- 485. I often feel that I'm not as good as other people.
- 486. I am very stubborn.
- 487. I have enjoyed using marijuana.

Contraction and the second second

488. Mental illness is a sign of weakness.

- 489. I have a drug or alcohol problem.
- 490. Ghosts or spirits can influence people for good or bad.
- 491. I feel helpless when I have to make some important decisions.
- 492. I always try to be pleasant even when others are upset or critical.
- 493. When I have a problem it helps to talk it over with someone.
- 494. My main goals in life are within my reach.
- 495. I believe that people should keep personal problems to themselves.
- 496. I am not feeling much pressure or stress these days.
- 497. It bothers me greatly to think of making changes in my life.
- 498. My greatest problems are caused by the behavior of someone close to me.
- 499. I hate going to doctors even when I'm sick.
- 500. Although I am not happy with my life, there is nothing I can do about it now.
- 501. Talking over problems and worries with someone is often more helpful than taking drugs or medicine.
- 502. I have some habits that are really harmful.
- 503. When problems need to be solved, I usually let other people take charge.
- 504. I recognize several faults in myself that I will not be able to change.
- 505. I am so sick of what I have to do every day that I just want to get out of it all.
- 506. I have recently considered killing myself.
- 507. I often become very irritable when people interrupt my work.
- 508. I often feel I can read other people's minds.

- 509. Having to make important decisions makes me nervous.
- 510. Others tell me I eat too fast.
- 511. Once a week or more I get high or drunk.
- 512. I have had a tragic loss in my life that I know I'll never get over.
- 513. Sometimes I get so angry and upset I don't know what comes over me.
- 514. When people ask me to do something I have a hard time saying no.
- 515. I am never happier than when I am by myself.
- 516. My life is empty and meaningless.
- 517. I find it difficult to hold down a job.
- 518. I have made lots of bad mistakes in my life.
- 519. I get angry with myself for giving in to other people so much.
- 520. Lately I have thought a lot about killing myself.
- 521. I like making decisions and assigning jobs to others.
- 522. Even without my family I know there will always be someone there to take care of me.
- 523. At movies, restaurants, or sporting events, I hate to have to stand in line.
- 524. No one knows it but I have tried to kill myself.
- 525. Everything is going on too fast around me.
- 526. I know I am a burden to others.
- 527. After a bad day, I usually need a few drinks to relax.
- 528. Much of the trouble I'm having is due to bad luck.
- 529. At times I can't seem to stop talking.

- 530. Sometimes I cut or injure myself on purpose without knowing why.
- 531. I work very long hours even though my job doesn't require this.
- 532. I usually feel better after a good cry.
- 533. I forget where I leave things.
- 534. If I could live my life over again, I would not change much.
- 535. I get very irritable when people I depend on don't get their work done on time.
- 536. If I get upset I'm sure to get a headache.
- 537. I like to drive a hard bargain.
- 538. Most men are unfaithful to their wives now and then.
- 539. Lately I have lost my desire to work out my problems.
- 540. I have gotten angry and broken furniture or dishes when I was drinking.
- 541. I work best when I have a definite deadline.
- 542. I have become so angry with someone that I have felt as if I would explode.
- 543. Terrible thoughts about my family come to me at times.
- 544. People tell me I have a problem with alcohol but I disagree.
- 545. I always have too little time to get things done.
- 546. My thoughts these days turn more and more to death and the life hereafter.
- 547. I often keep and save things that I will probably never use.
- 548. I've been so angry at times that I've hurt someone in a physical fight.
- 549. In everything I do lately I feel that I am being tested.

- 550. I have very little to do with my relatives now.
- 551. I sometimes seem to hear my thoughts being spoken out loud.
- 552. When I am sad, visiting with friends can always pull me out of it.
- 553. Much of what is happening to me now seems to have happened to me before.
- 554. When my life gets difficult, it makes me want to just give up.
- 555. I can't go into a dark room alone even in my own home.
- 556. I worry a great deal over money.
- 557. The man should be the head of the family.
- 558. The only place where I feel relaxed is in my own home.
- 559. The people I work with are not sympathetic with my problems.
- 560. I am satisfied with the amount of money I make.
- 561. I usually have enough energy to do my work.
- 562. It is hard for me to accept compliments.
- 563. In most marriages one or both partners are unhappy.
- 564. I almost never lose self-control.
- 565. It takes a great deal of effort for me to remember what people tell me these days.
- 566. When I am sad or blue, it is my work that suffers.
- 567. Most married couples don't show much affection for each other.

| MARKIN | G | 81 T F | 136 T F | 191 (T) (F) | 246 T F | 301 T F | 356 TF | 411 (T) (F) | 466 T F | 521 ① F 522 ① F |
|--------------------------|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-------------------------|
| DIRECTIO | NS: | 82 (T) (F) | 137 T F | 192 (T) (F) | 247 T F | 302 (T) (F) | 357 (T) (F) 358 (T) (F) | 412 (T) (F) | 467 (T) (F) 468 (T) (F) | 522 () (F 523 (T) (F |
| | | 83 TF | 138 TF | 193 (T) (F) | 248 T F | 303 (T (F) 304 (T (F) | 359 T F | 413 (T (F) 414 (T (F) | 469 T F | 523 () (° 524 (†) (° |
| Make dark, h | eavv | 84 T F | 139 (T) (F) | 194 (T) (F) 195 (T) (F) | 249 (T) (F) 250 (T) (F) | 304 (1) (F) 305 (T) (F) | 360 T F | 415 T F | 403 (T) (F) 470 (T) (F) | 525 TF |
| marks that co | | 85 (T) (F) | | | 250 () (F) 251 (T) (F) | 305 (T) (F) | 361 T F | 416 T F | 471 T F | 526 ① F |
| fill the circle. | | 86 (T) (F) 87 (T) (F) | 141 (T) (F) 142 (T) (F) | | 251 () (F) 252 (T) (F) | 307 T F | 362 ① F | 417 T F | 472 T F | 527 T F |
| | | 87 U F 88 T F | 142 () () 143 () (F) | 197 () () 198 () (F) | 253 T F | 308 T F | 363 T F | 418 T F | 473 T F | 528 T F |
| Use a soft, bl | ack | 89 T F | 144 T F | 199 T F | 254 T F | 309 T F | 364 T F | 419 T F | 474 T F | 529 T F |
| lead pencil. | | 90 T F | 145 T F | 200 ① ⑦ | 255 T F | 310 T F | 365 T F | 420 T F | 475 T F | 530 T F |
| · | | 91 T F | 146 T F | 201 ① 🕞 | 256 T F | 311 T F | 366 T F | 421 T F | 476 T F | 531 T F |
| Erase mistak | eș | 92 T F | 147 T F | 202 TF | 257 TF | 312 TF | 367 T F | 422 T F | 477 T F | 532 T F |
| cleanly. | | 93 T F | 148 T F | 203 TF | 258 T F | 313 T F | 368 T F | 423 T F | 478 T F | 533 T F |
| | | 94 T F | 149 T F | 204 (T) (F) | 259 T 🕞 | 314 T F | 369 (T) (F) | 424 T F | 479 T F | 534 T F |
| | | 95 T F | 150 T F | 205 T F | 260 T F | 315 T F | 370 () (F) | 425 🗇 🕞 | 480 T F | 535 T F |
| 1 T E | 41 T F | 96 T F | 151 T F | 206 († (* | 261 T F | 316 T F | 371 T F | 426 T F | 481 (Ť (F) | 536 (7) (7 |
| 2 T F | 42 T F | 97 (T) (F) | 152 T F | 207 ① ④ | 262 T F | 317 ① 🕞 | 372 T F | 427 T F | 482 T F | 537 ① [|
| 3 🗇 🕞 | 43 T F | 98 (T (F) | 153 T F | 208 (T) (F) | 263 T F | 318 T F | 373 ① ① | 428 T F | 483 T F | 538 ① [|
| 4 T F | 44 T F | 99 T F | 154 (T) (F) | 209 ① 🕞 | 264 ① 🕞 | 319 ① 🕞 | 374 ① ① | 429 T F | 484 T F | 539 (7) (7) |
| 5 T F | 45 T F | | 155 T F | 210 ① ① | 265 T F | 320 ① ⑦ | 375 ① ① | 430 T F | 485 T F | 540 T F |
| 6 (T) (F) | 46 (T) (F) | 101 (T) (F) | 156 T F | 211 ① 🕞 | 266 T F 267 T F | 321 T F 322 T F | 376 T F 377 T F | 431 (T) (F) 432 (T) (F) | 486 (T) (F) 487 (T) (F) | 541 T F |
| | 47 (T) (F) | 102 ① F | 157 (T) (F) 158 (T) (F) | 212 T F 213 T F | 267 () (F) 268 (T) (F) | 322 () (°) 323 () (°) | 378 T F | | 487 () (F) 488 (T) (F) | 543 ① (F |
| 8 T F 9 T F | 48 (T) (F) 49 (T) (F) | 103 (T) (F) 104 (T) (F) | | 213 () (F) 214 (T) (F) | 269 T F | 323 () () 324 () (F) | 379 T F | | 489 T F | 544 ① (* |
| 10 T F | 49 () () 50 () () | 104 () (F 105 (T) (F) | 159 () () 160 () (F) | 215 T F | 270 ① 🕞 | 325 T F | 380 T F | 435 T F | 490 T F | 545 T F |
| | 51 T F | 105 () () 106 () (F) | 161 T F | 216 ① ① | 271 ① 🕞 | 326 T F | 381 ① 🕞 | 436 T F | 491 T F | 546 T F |
| 12 T F | 52 T F | 107 T F | 162 T F | 217 ① 🕞 | 272 ① 🕞 | 327 T F | 382 T F | 437 T F | 492 T F | 547 0 6 |
| 13 T F | 53 T F | 108 T F | 163 T F | 218 T F | 273 TF | 328 TF | 383 T F | 438 T F | 493 T F | 548 () (|
| 14 T F | 54 T F | 109 T F | 164 T F | 219 T F | 274 🗇 🕞 | 329 T F | 384 T F | 439 T F | 494 T F | 549 (7) (7) |
| 15 T F | 55 T F | 110 T F | 165 T F | 220 () () | 275 T F | 330 T F | 385 (T) (F) | 440 T F | 495 T F | 550 T F |
| 16 T F | 56 T F | 111 T F | 166 T F | 221 T F | 276 T F | 331 ① 🕞 | 386 () (F) | 441 ① 🕞 | 496 T F | 551 T F |
| 17 🗇 🕑 | 57 (T) (F) | 112 T 🕞 | 167 T F | 222 T F | 277 ① 🗊 | 332 T F | 387 ① 🕞 | 442 T F | 497 ① 🕞 | 552 ① (* |
| 18 T F | 58 T F | 113 🗇 🕞 | 168 ① ⑦ | 223 ① 🕞 | 278 ① 🕞 | 333 ① 🕞 | 388 (T) (F) | 443 () () | 498 T F | 553 T F |
| 19 T F | 59 T F | | | | 279 () () | 334 ① 🕞 | 389 (7) (5) | | 499 (T) (F) | 555 ① ① |
| 20 ① 🕞 | 60 T F | 115 T F | | | 280 T F 281 T F | 335 T F 336 T F | 390 (T) (F) 391 (T) (F) | 445 T F 446 T F | 500 T F 501 T F | |
| 21 (T) (F) 22 (T) (F) | 61 (T) (F) 62 (T) (F) | 115 T F 117 T F | 171 T F 172 T F | 226 T F 227 T F | 282 T F | 337 T F | 391 () () 392 () (F) | 447 T F | 502 T F | 557 ① (|
| 22 () (F) 23 (T) (F) | 63 T F | 118 T F | 173 T F | 228 T F | 283 T F | 338 T F | 393 T F | 448 T F | 503 T F | 558 ① |
| 23 () () 24 () (F) | 64 TF | 119 T F | 174 T E | 229 T F | 284 ① ⑤ | 339 T F | 394 T F | 449 T F | 504 T F | 559 ① |
| 25 T F | 65 TF | 120 T F | 175 ① 🕞 | 230 ① ⑦ | 285 T F | 340 () () | 395 T F | 450 T F | 505 T F | 560 ① |
| 26 T F | 66 T F | 121 T F | 176 T F | 231 () () | 286 🗇 🕞 | 341 🗇 🕞 | 396 T F | 451 T F | 506 T F | 561 ① (|
| 27 ① Ē | 67 T F | 122 T F | 177 ① 🕞 | 232 T F | 287 T F | 342 T F | 397 T F | 452 T F | 507 T F | 562 7 (|
| 28 T F | 68 (T (F) | 123 T F | 178 T F | 233 ① 🕞 | 288 (T) (F) | 343 🗇 🕝 | 398 (T) (F) | 453 T F | 508 (T) (F) | 563 ① (|
| 29 T 🕞 | 69 (T) (F) | 124 T F | 179 🗇 🕞 | 234 🗇 🕞 | 289 T F | 344 T F | 399 T F | 454 T F | 509 T F | 564 ① |
| 30 T F | 70 T F | 125 († (F) | 180 🗇 🕞 | 235 ① 🕞 | 290 (T F | 345 ① 🕞 | 400 T F | 455 T F | 510 T F | 565 T (|
| 31 T 🗊 | 71 T F | 126 ① 🕞 | 181 ① ⑤ | 236 ① 🕞 | 291 ① 🕞 | 346 ① 🕞 | 401 T F | 456 T F | 511 T F | 567 ① |
| 32 T F | 72 T F | 127 ① 🕞 | 182 ① ① | 237 (7) (7) | 292 T F | 347 ① 🕞 | 402 T F | 457 ① 🕞 | 512 T F | 1 |
| 33 T F | 73 T F | 128 ① ① | | 238 ① 🕞 | 293 T F | 348 (T) (F) | 403 T F | 458 T F | 513 (7) (7) | |
| 34 (T) (F) | 74 T F | | | 239 (7) (7) | 294 T F | 349 T F | | 459 T F | 514 T F | |
| 35 T F | 75 TF | 130 T F | 185 T F | 240 T F | 295 (T) (F) 296 (T) (F) | 350 T F 351 T F | 405 T F 406 T F | 460 T F 461 T F | 515 T F 516 T F | |
| 36 T F 37 T F | 76 (T (F) 77 (T (F) | 131 (T) (F) 132 (T) (F) | 186 T F 187 T F | 241 (T) (F) 242 (T) (F) | 296 () (F) 297 (T) (F) | 351 () (F) 352 (T) (F) | 400 () (F) 407 (T) (F) | 461 () (F) 462 (T) (F) | 517 T F | |
| 37 () (F) 38 (T) (F) | 78 T F | 132 () (F) 133 (T) (F) | | 242 () (F) 243 (T) (F) | 298 T F | 352 () () 353 () (F) | 408 T F | 462 () () 463 () (F) | 518 ① ① | |
| 30 () (*) 39 () (*) | 79 T F | 133 () () 134 () () | 189 T F | 243 () () 244 () (F) | 299 T F | 354 T F | 409 T F | 464 T F | 519 T F | |
| 40 T F | 80 TF | 134 () () 135 () (F) | 190 T F | 245 T F | 300 T F | 355 T F | 410 T F | 465 T F | 520 T F | |