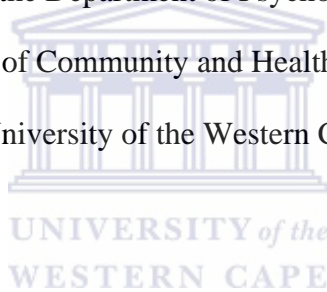


**THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND DRUG
DEPENDENCE AT AN IN-PATIENT TREATMENT CENTRE IN THE
WESTERN CAPE**

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A mini-thesis submitted in partial fulfilment of the
requirements for, the degree of Magister Psychologiae
in the Department of Psychology,
Faculty of Community and Health Sciences,
University of the Western Cape



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KEYWORDS

Drug Dependence, Childhood Trauma, Relationship, Diathesis-Stress Model, Risk Factors, The Drug Use Disorder Identification (DUDIT), The Childhood Trauma Questionnaire (CTQ), Quantitative Research Design, In-Patient Treatment Centre, Cape Metropolitan Area, Correlation

ABSTRACT

The outcome of child abuse, i.e. physical, emotional and/or sexual, and child neglect is multifactorial. The severity, duration and nature of abuse and the child's vulnerabilities are all contributory factors with regards the outcome of abuse. Children who are traumatized are likely to be profoundly affected. Studies have shown and nearly every researcher agrees that early childhood traumas lie at the root of many emotional and psychological illnesses. It has been noted that drug abuse is a major problem in the Western Cape. This thesis explored the relationship between subjectively perceived childhood trauma and drug dependence in an in-patient treatment-seeking sample of adults in the Cape Town Metropolitan Area in the Western Cape. This thesis presents the results of a measure of childhood trauma, namely the Childhood Trauma Questionnaire [CTQ] and a measure of drug dependence, the Drug Use Disorder Identification Test [DUDIT]. The sample consisted of 52 participants and included both males and females. Only participants who were identified as drug dependent were included in the study. Patients who were actively psychotic and/or alcohol dependent were not included in the study. Ethical clearance was obtained from the University of the Western Cape's higher degree ethical committee. The anonymity of the participants, the importance of responding openly and honestly and the sensitive nature of the questions were highlighted during the test administration. Questionnaires were administered in accordance with the guidelines stipulated in the respective manuals. The data was analysed through correlation. The study found a positive correlation between childhood emotional abuse and drug dependence, and childhood physical abuse and drug dependence.

DECLARATION

By submitting this mini-thesis, I, Wynand Gerber, declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.



W. Gerber

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

The current study explored the relationship between subjectively perceived childhood trauma and drug dependence at an in-patient treatment-seeking sample (here forth referred to as a clinical sample) of adults in the Cape Town Metropolitan Area in the Western Cape. It presents the results of a measure of childhood trauma, namely the Childhood Trauma Questionnaire (CTQ) and a measure of drug dependence, the Drug Use Disorder Identification Test (DUDIT), as administered to the aforementioned sample.



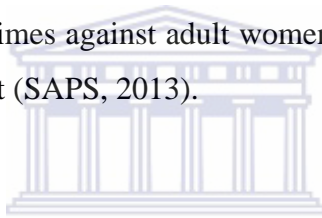
1.1.1 Violence and trauma within the South African Context

In an article published by Seedat, Van Niekerk, Jewkes, Suffla and Ratele (2009), violence and injuries were found to be the second leading cause of death in South Africa. They have stated that even though South Africa is a country not at war, it faces an unparalleled burden of morbidity and mortality stemming from violence and injury. Research conducted by Norman, Bradshaw, Schneider, Pieterse and Groenewald (2000) as well as by Matzopoulos, Norman, and Bradshaw (2004) found that violence and unintentional injuries collectively were the second leading cause of all deaths in South Africa, after HIV/AIDS. The overall injury death rate of 157.8 per 100 000 population is almost twice as high when compared internationally. According to Matzopoulos (et al., 2004), South Africa's rate is higher than Africa's average of 139.5 per 100 000 population and almost double the global average of 86.9 per 100 000 population. According to Seedat et al. (2009) these high rates are driven by violence.

During 2011/2012 a total of 2 085 757 (approximately 2.1 million) serious crime cases were registered in South Africa (South African Police Service Statistics, 2013). Crimes such as murder, attempted murder, sexual offences, assault GBH (i.e. assault with the intent to inflict grievous bodily harm), common assault, aggravated robbery and other robbery are grouped together into

seven categories of serious crime or contact crime against a person. The crimes collectively accounted for 29.9% of South Africa's recorded serious crime. These crimes involve physical contact (usually of a violent or coercive nature) between the perpetrators and their victims. Contact crime frequently causes extremely serious and often lingering (sometimes permanent or even fatal) physical, psychological and material damage to victims, leaving lasting scars on the South African society and on the country's socio-economic well-being (SAPS, 2013).

There were 307 580 convictions in 2011/12 and 352 513 convictions for all serious crimes during 2012/13. 609 suspects were sentenced to 826 life sentences and family violence, child protection and sexual offences accounted for 499 of these life sentences. Reported crime figures pertaining to crimes against women indicate that in 2009/10 there were 197 877 crimes committed against women and 175 880 in 2012/13. Crimes against adult women fluctuate between 15% in attempted murders and 3.1% in common assault (SAPS, 2013).



Almost half of South Africa's deaths are due to injury caused by interpersonal violence (Seedat et al., 2009), which according to Peden, McGee and Sharma (2002) is four and a half times the percentage worldwide. 14.6% of murder cases, 16.3% of attempted murder cases and 29.8% of assault GBH cases involved adult female victims, while 48% of common assaults were committed against adult women. Almost half of all sexual offences (48.5%) involved adult women as victims. Adult males were the victims of 50.7% of all predominantly social contact crimes. An average of almost 80% of all murders and attempted murders involved adult male victims, as did nearly two-thirds of all assault GBH cases (64.7%). Only in the case of common assault and sexual offences were male victims in the minority (45% of all common assaults and 11.4% of sexual offences).

Intimate partner violence often includes sexual and emotional abuse, and many women are exposed to many forms of violence. Wood, Lambert and Jewkes (2008) found that 20% of women in antenatal clinics in Soweto reported sexual abuse by an intimate partner and 68% reported emotional abuse. Furthermore, according to SAPS statistics (2013) over 48 000 cases of rape of women and girls were reported to the police during 2011/2012. Rape, according to the new, more

inclusive definition that covers vaginal, oral and anal penetration, accounted for 74.5% of cases recorded nationally.¹

1.1.2 Trauma-related violence against children within the South African Context

Kaminer and Eagle (2010) postulate that traumatic events are not only limited to adults but children are also vulnerable to trauma that originates from a broad spectrum of events. Children are often direct and indirect victims of trauma and are commonly witnesses to violence endorsed between adults in their environment. Even though children may have various coping strategies to deal with extreme stressors, aspects of their bodies, minds and psyche are not yet fully developed suggesting that they are often more vulnerable to the impact of trauma.

In 2009/10 and 2012/13, respectively, there were 56 539 and 49 550 crimes committed against children. Most of the victims of crime committed against children are between the ages of 15 and 17. More than half (55.1%) of murders, 54.4% of attempted murders, 67.9% of assault GBH, and 59.5% of common assault offences were committed against children in the age group 15–17 years. On average, only 5.7% of all murder, attempted murder, assault GBH and common assault cases involved children as victims. The third largest and fourth largest proportion of murders (12.5%) and attempted murders (9%) occur in the 0 age category (i.e. in the first life year) (SAPS, 2013).

Children are also exposed to various forms of emotional violence and neglect. The results of a study conducted by Jewkes, Sikweyiya, Morrell, and Dunkle (2009) showed that 35–45% of children had witnessed their mother being beaten, 15% reported that one or both of their parents had been too

¹ The figures reported in terms of inclusive definition of rape cannot be compared with those recorded in terms of the old definition that was used prior to December 2007 because that definition only covered vaginal penetration of females (SAPS, 2013).

drunk to care for them, 30% were moved around between households during their childhood, and 35% were orphans, having lost one or both parents (mostly not from HIV).

Sexual abuse amongst children and toddlers is also very common and the statistics are disturbing. 26 955 cases of sexual offences were recorded during 2011/2012 (SAPS, 2013) and accounted for nearly 68% of crimes committed against children below the age of 15 years. It is even more disturbing to note that 13.2% of these sexual offences involved children aged 0–5 years of age and 27% involved children 6–11 years of age.

These statistics are in keeping with research done in South Africa by Vetten, Jewkes, Fuller, Christofi, Loots and Dunseith (2008) who found that 35 victims of rape reported to police in the Gauteng province in 2003 were aged between one and three years. According to Vetten et al. (2008) rape dockets from the Gauteng province in 2003 showed that 40% of victims who reported rape to the police are children younger than 18 years, with 15% younger than 12 years. They also found that 84% of rapes are perpetrated by men who are known to the child, whether relatives, neighbours, friends, or acquaintances, by contrast with adult rapes, of which half (48%) are perpetrated by strangers. Research by Seedat et al. (2009) has shown that 39% of girls reported having undergone some form of sexual violence (e.g., unwanted touching, forced sex, or being exploited by much older men) before they were 18 years old.

1.1.3 Drug Abuse within the South African context

The United Nations World Drug Report (2011) estimates that over the last decade the overall number of drug users has increased from approximately 180 million to 210 million individuals. According to Ramlagan, Peltzer and Matseke (2010) the abuse of substances has a high prevalence rate, globally. In South Africa, and especially in the Western Cape, substance-related problems are extensive and are still continuing to rise (Myers, Pasche & Adam, 2010).

The United Nations World Drug Report (2011) has named South Africa as one of the drug capitals of the world. According to Bayever (2009), in South Africa drug consumption is twice as high when compared to the world norm, with 15% of South Africa's population diagnosed with substance dependence. Drug dependence is estimated to cost South Africa R20-billion a year and may even be regarded as a bigger threat than the HIV/AIDS pandemic.

In the last decade increases in the use of methamphetamine have been documented in a number of countries, including Australia, Japan, New Zealand, Thailand and some parts of the United States. Traditionally, levels of methamphetamine and other amphetamine use have been low in Africa. However, South Africa has experienced a considerable increase in drug trafficking and the use of heroin, cocaine and amphetamine-type stimulants since its first democratic election in 1994 and subsequent re-entry into the global economy (Plüddemann, Myers & Parry, 2008).

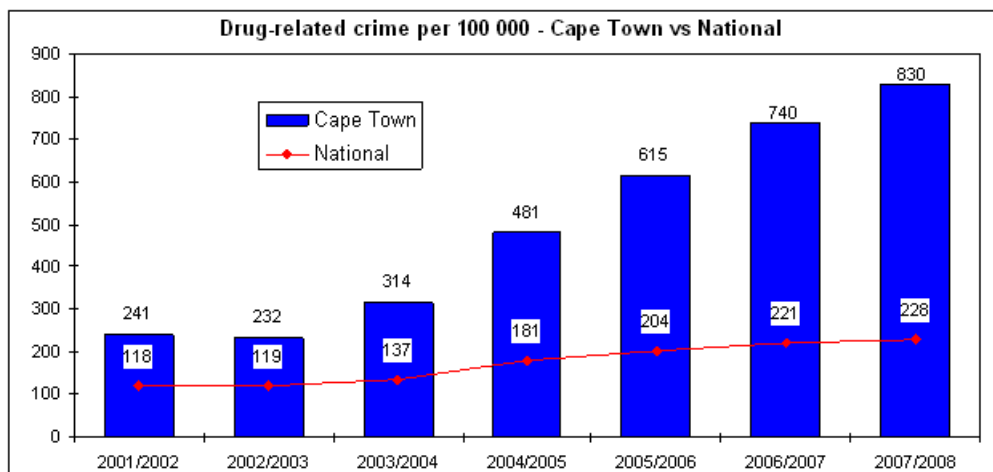
South Africa's geographic location, lax border controls, weak criminal justice system, modern telecommunications and banking systems as well as international trade links with South America, North America, Europe and Asia have resulted in South Africa becoming a desirable zone for the transshipment of drugs. Heroin, from Asia and cocaine, from South America, are both imported into South Africa and exported to Europe, North America and even Australia. Over the past 10 years, urban centres such as Cape Town, Johannesburg and Pretoria have witnessed a marked increase in the use of drugs such as heroin and cocaine. However, very little use of methamphetamine had been noted until data collected from drug treatment centres in Cape Town began to show significant numbers of patients reporting the use of this drug in 2004 (Plüddemann et al., 2008).

According to Nyabadza, Senelani and Hove-Musekwa, (2010) the last number of years has seen a dramatic increase in treatment demand for abuse of drugs such as dagga, mandrax, cocaine, heroin and methamphetamine in the Western Cape. The number of patients who enrolled into drug rehabilitation treatment centres in the Western Cape went from 2862 in the first half of 1997 to 3134 in 2010, and peaked in the second half of 2009 (3667 patients). However, this number has decreased to 2733 patients in the second half of 2011 (Dada, Plüddemann, Parry, Bhana, Vawda, Perreira, Nel, Mncwabe, Pelsler & Weimann, 2012). According to Plüddemann et al. (2008) drug

abuse and the burden of drug use is also greater in the Western Cape when compared to other provinces in South Africa.

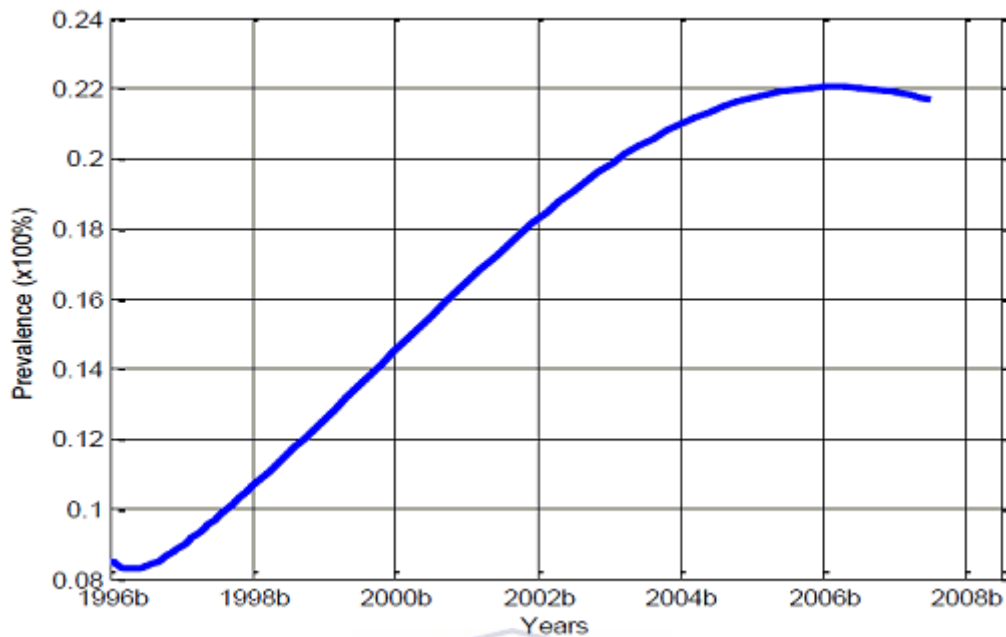
Research done by Parry (2005) found that the city of Cape Town has experienced a large growth in the past years, mainly due to migration from other provinces, especially the Eastern Cape. According to Kapp (2008) unemployment and poverty, especially in the Cape Flats (which is the lowland or flat area situated to the southeast of the central business district), has been related to the sharp increase in criminal activities that include a highly organized illegal drug economy.

According to SAPS figures, 60% of crimes nationally were related to substance abuse. In the Western Cape, the figure was closer to 80%. The perpetrators of these crimes are either under the influence of substances, or trying to secure money for their next fix. In Cape Town, drug arrests leapt from 300 in 2006 to 1500 in 2012.



**Figure 1: How drug-related crime in Cape Town compares nationally
(City of Cape Town Stats, 2009)**

The rapid increase observed in the number of individuals seeking treatment might be an indication of a rapid increase in the number of drug users in the community as shown by Figure 2.



**Figure 2: The number of drug users seeking treatment
(City of Cape Town Stats, 2009)**

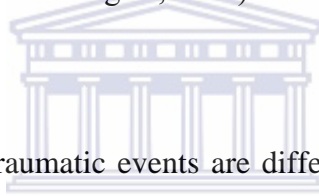
Cape Town has approximately one million individuals in the Cape Flats. A prevalence of 20% implies that the population of drug users is estimated at 200 000 which compares well to the projected number of drug users in Cape Town (City of Cape Town Stats, 2009).

In conclusion, drug use and consequently drug dependence is a major problem in South Africa, but so too is violence and trauma, especially amongst South Africa's children. The aim of this study is therefore to determine whether there is an association between childhood trauma and drug dependence as (Seedat et al., 2009) have argued that exposure to rape, intimate partner violence, and abuse and neglect in childhood are risk factors for the country's most prevalent and serious health problems, including HIV and sexually transmitted infections, substance misuse, and common mental disorders, such as post-traumatic stress disorder, depression, and suicidality.

1.1.4 Defining Trauma

Two definitions of trauma – trauma as a physical wound and trauma as a mental or psychological wound – are important for this thesis.

Trauma is defined as a “physical injury or wound, or a powerful psychological shock that has damaging effects” (The Oxford Dictionary of Psychology, 2009, p.780). According to Reber and Reber (2001, p. 764) trauma is “a term used freely either due to physical injury caused by some direct external force or due to psychological injury caused by some extreme emotional assault.” The notion of psychological trauma is, however, relatively recent. It was coined in the 19th century, when trauma transformed itself from being purely physical to the notion of a “mental wound” (The Oxford Dictionary of Word Origins, 2009).



From a psychological perspective, traumatic events are different from conventional adversities in the sense that they involve “threats to life or bodily integrity, or a close personal encounter with violence and death” (Herman, 1992, p. 33). As a result, individuals experience helplessness and terror (Herman, 1992) and their usual coping skills to handle adverse or traumatic events are often depleted (McCann and Pearlman, 1990). Thus, the possible psychological effects of traumatic events on humans mirrors the transferring of the physical definition of trauma onto a definition focussing on the inner psychology of individuals (Walters, 2010).

Within this thesis, trauma is defined according to the definition found in the childhood trauma questionnaire (1998). This definition divides childhood trauma into five categories (see below).

1.1.5 Defining Child Abuse

According to Kong and Bernstein (2009) a considerable amount of research has targeted childhood trauma as a predisposing risk factor for psychopathologies in adulthood. However, previous studies had considerable definitional difficulties and methodological deficiencies of the instruments

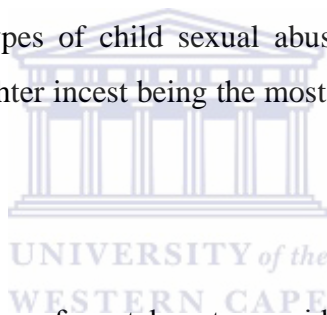
associated with various forms of trauma. For example, definitions of sexual abuse have varied considerably, ranging from broad definitions that may include one-time incidents of perpetration exposure to narrow ones that consider only experiences of subject genital contact. The term emotional abuse and psychological abuse have been used interchangeably. In addition, previous studies used abused –or non-abused dichotomies rather than severity ratings in their methodology. Some self-reported questionnaires for measuring childhood emotional abuse have focused exclusively on parental behaviours and have failed to ascertain the developmental stage at which the abuse occurred. Thus, this study adopted the definition of childhood abuse and neglect reflected in the Childhood Trauma Questionnaire (Bernstein & Fink, 1998).

The term child abuse is used interchangeably with childhood trauma or childhood maltreatment (including child neglect). This is congruent with the definition used by Bernstein and Fink (1998) in the Childhood Trauma Questionnaire (CTQ), which sub-divided childhood trauma into five categories. These are emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect. These categories can be broadly grouped into acts of commission (actions against the child) and acts of omission (actions of failed care) (Bernstein & Fink, 1998). The latter acts are emotional neglect and physical neglect, while the former acts are emotional abuse, physical abuse and sexual abuse (Sadock & Sadock, 2007). The definitions of these domains of childhood trauma that the CTQ employs are based on widely agreed upon definitions in the field of childhood trauma (Crouch and Milner, 1993; Finkelhor, 1994b; Knutson, 1995, Malinosky-Rummel & Hansen, 1993).

Emotional abuse “refers to verbal assaults on a child’s sense of worth or well-being, or any humiliating, demeaning, or threatening behaviour directed towards a child by an older person” (Bernstein & Fink, 1998, p. 2). According to Sadock and Sadock (2007) common behaviours include verbal attacks (such as screaming, threatening, blaming or being sarcastic), exposure to domestic violence, placing excessive demands on inappropriately high expectations and pushing the child to partake in anti-social activities.

Physical abuse “refers to bodily assaults on a child by an older person that poses a risk of, or results in, injury” (Bernstein & Fink, 1998, p. 2). Examples include being beaten, punched, kicked, bitten, burned or poisoned and is often associated with corporal punishment (Sadock & Sadock, 2007).

Sexual abuse “refers to sexual contact or conduct between a child and an older person, explicit coercion is a frequent but not essential feature of these experiences” (Bernstein & Fink, 1998, p. 2). According to the Oxford Dictionary of Psychology (2009, p.693) the term sexual abuse refers to “the subjection of a child [or other vulnerable person] to sexual activity liable to cause physical or psychological damage.” Sadock and Sadock (2007) state that child sexual abuse includes being forced to participate in oral and or penetrative sex (involving penetration by genitals or foreign objects), touching of genitalia (with or without clothes) and exhibitionism. According to Carr (2011), a common distinction in types of child sexual abuse is that between intra-familial and interfamilial abuse, with father-daughter incest being the most prevalent form of intra-familial child sexual abuse.



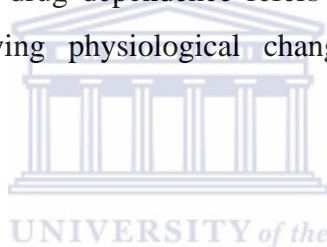
Emotional neglect “refers to the failure of caretakers to provide in a child’s basic psychological and emotional needs, such as love, encouragement, belonging and support (Bernstein & Fink, 1998, p. 2). According to Carr (2011), there is a passive ignoring of the child’s needs. These include safety needs for protection, intellectual needs for stimulation and social interaction, and the need for age-appropriate opportunities for autonomy and independence.

Physical neglect “refers to the failure of caregivers to provide in a child’s basic physical needs, including food, shelter, safety and supervision, and health” (Bernstein & Fink, 1998, p. 2). Examples cited in Sadock and Sadock (2007) include abandoning, barring the child from their home, gross negligence of the child’s welfare and disruptive custodial care.

1.1.6 Drug Dependence

To deal with the extraordinary complexities of defining and classifying drug-related problems in the DSM-IV-TR (APA, 2000) and in the International Statistical Classification of Disease and Related Health Problems, Tenth Revision (ICP 10, WHO, 1996), drug problems are classified on Axis I on the basis of the following three parameters: the behavioural pattern of use; the effects of the drug when it is taken or unavailable and the type of drug used.

The criteria of drug dependence provided by the DSM-IV-TR (2000) includes a maladaptive pattern of drug use, leading to clinically significant impairment of distress, as manifested by three or more of the seven symptoms occurring in the same twelve-month period. While drug abuse refers to drug taking that leads to personal harm, drug dependence refers to those situations where there is a compulsive pattern of use involving physiological changes associated with tolerance and withdrawal (Carr, 2011).



According to the Oxford Dictionary of Psychology (2009, p. 201) drug dependence is “a psychological or sometimes physical state of reliance on a substance, especially on a narcotic drug such as cocaine or heroin. It is characterized by a compulsion to take the drug in order to experience its effects.”

According to Sadock and Sadock (2007), the model of drug dependence conceptualizes dependence as a result of a process in which multiple interacting factors influence drug-using behaviour. Drug availability, social acceptability and peer pressure are seen as the primary determinants for early experimentations with a drug. Factors such as personality and individual biology play a more important role in how the effects of a given drug are perceived and the degree to which repeated drug use produces changes in the central nervous system.

1.2 RISK FACTORS ASSOCIATED WITH DRUG DEPENDENCE

The development of psychological problems is influenced by many risk factors (Carr, 2011). Psychosocial risk factors that influence the emergence of specifically drug dependence include family conflict, lack of parental supervision, peer relationship problems and individual stressful life events. Other factors include lack of anger control in families of drug abusers, lack of attachment and involvement of parents with children's activities, co-morbid psychiatric disorders such as conduct disorder and depression, academic difficulties and impulsivity. In addition, pre-existing conduct problems or emotional problems, difficult temperament, the misperception of the harmlessness of drugs, parental modelling of drugs, parental criminology or psychological problems, as well as early life stressors (including childhood trauma) have all been associated with drug dependence (Carr, 2011).

Several studies have reported that early childhood traumatic experiences constitute a major risk factor for the development and maintenance of alcohol use disorders in adulthood (De Bellis, 2001). A survey of students attending public schools in Grades 6, 9 and 12 showed that respondents who had endorsed physical and sexual abuse histories were more likely to use alcohol, marijuana and other substances (Harrison, Fulkerson & Beebe, 1997). Moreover, Clarke, Lesnick and Hegedus, (1997) found that childhood trauma is more likely to occur prior to alcohol and other substance abuse in adolescence.

Childhood sexual abuse has been associated with earlier ages of substance use initiation (Hawke, Jainchill & Leon, 2000; Kilpatrick, 2000; Raghaven & Kingston, 2006). A reported history of childhood sexual abuse and childhood physical abuse has been identified as a risk factor for future substance abuse and dependence. Rates of childhood sexual and physical abuse in dually diagnosed populations were found as high as 29.2% and 53.1% for sexual and physical abuse respectively (Blankertz, Cnaan & Freedman, 1993). Additionally, those with substance use disorders and co-morbid non-substance related mental health diagnoses with a history of physical or sexual abuse have more severe problems on the basis of instruments such as the Addiction Severity Index (Ouimette, Kimerling, Shaw & Moos, 2000) and Global Assessment Functioning (Garcia-Rea & LePage, 2010). In the National Survey of Adolescents, conducted by Khoury, Tang, Bradley,

Cubells and Ressler (2010) teens that had experienced physical or sexual abuse and/or assault were three times more likely to report past or current substance abuse than those without a history of trauma.

According to Sadock and Sadock (2007) the greater the number of risk factors the more likely it is that a person will become drug dependent. Certain risk factors have been identified to predispose individuals to develop psychological problems (Carr, 2011). These can be sub-classified as personal domains, or as Sussman and Ames (2001) call it, intra-personal factors (i.e. factors or characteristics that are endogenous to the individual, meaning influence within the individual) and contextual domains, or extra-personal factors (i.e. factors or characteristics that are exogenous to the individual, meaning it is external or outside of the individual). As a result personal factors refer to biological and psychological characteristics of the individual (Carr, 2011) and contextual factors refer to features of the individual's psychosocial environment such as peer group, family dynamics and community interaction (Grant, Stinson, Dawson, Chou, Ruan & Pickering, 2004). Research conducted by Khoury et al. (2010) in the United States of America, showed that early trauma exposure is well known to significantly increase the risk for a number of psychiatric disorders in adulthood. Several international studies (Garcia-Rea & LePage, 2010) have documented the association between child sexual abuse (CSA) and child physical abuse (CPA). These traumas have been associated with significant mental health problems, including depression and suicide, personality disturbances, severe mental illness, adult Post-Traumatic Stress Disorder (PTSD) and drug dependence. Moreover, researchers (Gil-Rivas, Florentine, Anglin & Taylor, 1999) have identified a reported history of CSA and CPA as a risk factor for future drug abuse and dependence. Rates of CSA and CPA in dually diagnosed populations were found as high as 29.2% and 53.1% for sexual and physical abuse, respectively (Blankertz et al., 1993).

1.3 RATIONALE FOR THE STUDY

Childhood trauma has been consistently associated with a range of serious long-term psychiatric psychopathologies, including depression, drug abuse, anxiety disorders, personality disorders and eating disorders (Rorty & Yager, 1994). Consequently, the psychological impact of trauma, especially childhood trauma, often continues into adulthood (Kong & Bernstein, 2009).

Several studies have focused on childhood trauma as a predisposing factor for psychopathologies such as eating disorders (Kong & Bernstein, 2009), psychosis and schizophrenia (Read, Van Os, Morrison & Ross, 2005; Kilcommons & Morrison, 2005) and PTSD (Kingston & Raghavan, 2009). While not all individuals exposed to trauma will meet the diagnostic criteria for subsequent psychopathology, the effects of trauma may still be experienced on an intra-psychic level and require psychological treatment.

This study proposed to explore the relationship between childhood trauma and drug dependence within the South African context. Within the domain of published research on childhood trauma, only a paucity of research exists specifically on the relationship between childhood trauma and drug dependence in the South African context (Saban, Flisher & Distiller, 2010).

The current study aimed to contribute to the limited South African studies on the issue of childhood trauma and the relationship with drug dependence. From a psychological and psychiatric perspective, screening measures assist in identifying survivors of childhood trauma and inform psychotherapeutic treatment. This study is therefore of interest as findings might inform interventions regarding childhood trauma and the effects there-of.

1.4 RESEARCH QUESTION

Is there a relationship between specific childhood trauma and drug dependence in adults at an in-patient treatment centre in the Western Cape?

1.5 AIMS OF THE STUDY

The broad aim of the study was to determine if a relationship exists between specific childhood trauma and drug dependence in adults at an in-patient treatment centre in the Western Cape.

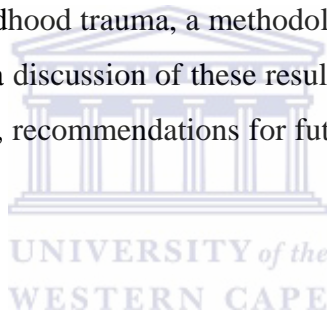
Objectives include:

- Investigating the relationships between the types of trauma and drug dependence

1.6 CONCLUSION

This chapter has provided definitions of various domains of childhood trauma and one related psychological disorder, namely drug dependence. Following this, the risk factors for drug dependence were described. Finally, the rationale, aims and objectives and research questions posed by this study were outlined.

The following chapters will provide further information on the theoretical framework, a review of relevant literature in the field of childhood trauma, a methodological conceptualization of the study, presentation of results, followed by a discussion of these results. The thesis will be concluded with notes on the limitations of this study, recommendations for future research and contributions of this research study.



CHAPTER 2

THEORETICAL FRAMEWORK AND REVIEW OF THE LITERATURE

2.1 INTRODUCTION

The following chapter provides a review of existing literature in the fields of childhood trauma and drug dependence. Specifically, the literature review is structured as follows: the psychological effect of trauma; the prevalence rates of trauma and drug dependence; and the association between psychopathology and drug abuse/dependence. This chapter concludes with a discussion of the theoretical framework to be considered for this study, namely the diathesis-stress model.

2.2 THE PSYCHOLOGICAL EFFECTS OF TRAUMA

A growing body of research has established that young children, even infants, may be affected by events that threaten their safety or the safeties of their parents or caregiver. This trauma can be the result of intentional violence, such as physical or sexual abuse, or domestic violence or even the result of natural disasters, accidents or war. Young children may also experience traumatic stress in response to painful medical procedures or the sudden loss of a parent or caregiver. Young children, as with older children, experience both behavioral and physiological symptoms associated with trauma (Walters, 2010).

According to Reber and Reber (2001) a person's response usually involves intense fear, feelings of helplessness or horror as well as a sense of being out of control. In children, however, this may be expressed by agitation or disorganized behaviour (Bushwell, 2008).

Bushwell (2008) articulated that the experience of trauma shatters three basic healthy assumptions about the self and the world. They are the belief in personal invulnerability, the view of the self as

positive and the belief that the world is a meaningful and orderly place, and that events happen for a reason. Human induced trauma (i.e. trauma inflicted by a fellow human being), shatters a fourth belief, namely the trust that human beings are fundamentally benign. Thus, according to Murray (2006), emotional and psychological trauma shatters one's sense of security, making one feel helpless and vulnerable in a dangerous world and leaves one feeling vulnerable and out of control in a world that is no longer predictable. Accordingly, the person is left in extreme confusion and insecurity.

In addition, Briere (2002) has argued that childhood trauma has an impact on the survivor's psychological functioning in adolescence and adulthood in six core ways.

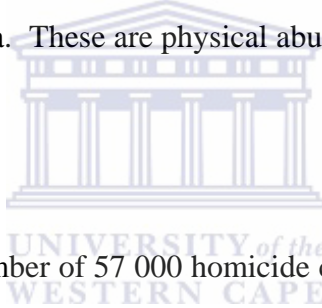
These are:

- negative assumptions about the self, others, and ways of relating that are deeply embedded within the survivor's psyche
- distress-related conditioned emotional responses arising in response to stimuli resembling the initial abuse
- re-experiencing of sensory memories related to the trauma, such as intrusive flashbacks
- development of negative autobiographical memories and self-perceptions that become triggered in similar interpersonal situations resembling the abuse
- suppressed negative autobiographical memories related to abuse which still affect behaviour and thoughts when triggered, and
- poorly developed affect regulation and distress tolerance skills

2.3 THE PREVALENCE RATES OF THE VARIOUS DOMAINS OF CHILDHOOD TRAUMA

Child and adolescent maltreatment and abuse are prevalent and its long-term consequences multiply. Child abuse occurs in boys and girls of all ages, in all ethnic groups and at all socio-economical levels. Fear, guilt, anxiety, depression and ambivalence regarding disclosure are common trends in the psychological profile of the abused child. Childhood trauma and particular forms of maltreatment associated with symptoms of psychological traumatising are widespread and prevalent (Walters, 2010).

The following sections describe the international and national prevalence rates of the previously defined domains of childhood trauma. These are physical abuse, sexual abuse, emotional abuse and generalized child neglect.



In 2000, there were an estimated number of 57 000 homicide cases involving children younger than 15 years around the world, with the highest rates of death in infants and very young children (four years and younger). The latter was more than double than that of children five years to fourteen years of age (Runyan, Wattam, Ikeda, Hassan, & Ramiro, 2002; World Health Organization, 2002).

According to Sadock and Sadock (2007), the most common forms of maltreatment reported were being left at home alone as a child, indicating potential supervision neglect (41.5%), physical assault (28.4%), physical neglect (11.8%) and sexual abuse (4.5%). Creighton (2004), Sadock and Sadock (2007), and Stowman and Donahue (2005) have stated that child neglect is the most prevalent form of child abuse. In 2008, 71% of confirmed child maltreatment victims reported and screened by child protection services of the United States had experienced neglect (Children's Bureau, 2010). An analysis of officially reported child neglect cases in the 1990s showed that the annual incidence of neglect in the United Kingdom, Australia and North America varied from 1–10 per 1 000 (Carr, 2006).

Comparisons of the international epidemiology of physical abuse suggest that this form of abuse is very common (Creighton, 2004). Recent evidence revealed that, annually between 3.7–16.3% of children in high income countries have experienced severe physical abuse at the hands of their parents, according to child and adolescent self-report and parent-report measures (Gilbert, Widom, Browne, Fergusson, Webb & Janson, 2009). Unfortunately, only a small percentage of these cases are investigated by the local child protection agencies (Carr, 2006; Gilbert et al., 2009).

A meta-analysis of international studies on sexual abuse, suggests that between 5–10% of girls, and 1–5% of boys experience sexual abuse involving penetration, with general child sexual abuse figures significantly higher (Gilbert et al., 2009). Research suggests that approximately 20% of women and between 5–10% of men in the United States have experienced child sexual abuse (Finkelhor, 1994a, 1994b) despite existing systems (Runyan et al., 2002).

The prevalence rates of emotional abuse are equally alarming. In the United Kingdom and United States, population-based self-report studies reveal that between 8–9% of girls, and approximately 4% of boys experienced severe emotional abuse during childhood (Gilbert et al., 2009). During 2008 7.3% out of an estimated 772 000 confirmed cases of child maltreatment in the USA were victims of emotional abuse (U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2010).

In the South African context, Madu (2002) found a 79% prevalence rate for psychological abuse (prior to age 17) and a 16% prevalence rate of physical abuse (prior to age 17). According to Richter (2003), the rates of childhood sexual abuse obtained in retrospective studies with South African adult populations are alarmingly high, ranging from 26% to 54% for participants, irrespective of sex (Collings, 1991; Collings, 1997; Madu, 2001; Madu & Peltzer, 2000). In South African samples of urban university students, an excess of 34% of female (Collings, 1997; Levett, 1989) and 28% of male (Collings, 1991) participants indicated histories of sexual abuse, while a study with rural university students suggested that 23% of female and 21% of male participants (Madu, 2001) had experienced histories of sexual abuse. Higher rates of sexual abuse were reported in a sample of school-going adolescents; with figures of 53.2% for females and 56% for

males (Madu & Peltzer, 2000). A study assessing psychopathology amongst a group of 97 adolescents and children who attended a Youth Stress Clinic in South Africa found that 53% reported sexual abuse (Kaminer & Eagle, 2010).

From the above, it is evident that various domains of childhood trauma are prevalent internationally as well as in South Africa.

2.4 THE ASSOCIATION BETWEEN PSYCHOPATHOLOGY AND DRUG ABUSE/DEPENDENCE

The association between psychopathology and drug use has been extensively researched, particularly within the last three decades. There is consensus that psychiatric problems and drug use are almost inextricably associated with one another, and that such co-morbidity is as common in children and adolescents as it is in adults (Saban et al., 2010; Angold, Costello & Erkanli, 1999).

Research conducted by Khoury et al. (2010) showed that early trauma exposure is well known to significantly increase the risk for a number of psychiatric disorders in adulthood. A survey of students attending public school in grade 12 in the USA, showed that respondents who had endorsed physical and sexual abuse histories were more likely to use alcohol, marijuana and other substances (Harrison et al., 1997).

Meta-analyses performed between 1987 and 2005 (Read et al., 2005) found that patients subjected to child sexual abuse (CSA) or child physical abuse (CPA) have earlier first admissions in hospitals, longer and more frequent hospitalization, spend longer time in seclusion, receive more medication, are more likely to self-mutilate and have higher global symptom severity. In one study, suicidal tendencies in adult outpatients were more accurately predicted by childhood abuse than by a current diagnosis of depression (Read et al., 2005). A study done by Kilcommons and Morrison (2005) has identified a positive relationship between physical abuse and psychotic symptoms and sexual abuse

and hallucinations. Moreover, Khalathari, Ghorbanshirodi, Akhshabi, Sedaghati and Karimi (2011) found a positive correlation between child rearing practices and substance abuse.

In South Africa, several studies have documented levels of distress in traumatized children (Kaminer & Eagle, 2010). However, South African studies have predominantly focused on drug abuse and PTSD (Carey, Walker, Rossouw, Seedat & Stein, 2008).

In the late 1980s and early 1990s, most of this research focused on assessing the consequences of political violence and civil unrest in the last years of Apartheid (Kaminer & Eagle, 2010). Findings from these studies indicated that a high percentage of younger children experienced various symptoms of PTSD, while older youth exposed to chronic political violence frequently presented with difficulties related to drug abuse and aggression.

Seedat et al. (2009) have stated that exposure to trauma and violence during childhood can give rise to both re-victimisation and intergenerational cycling of violence. They argue that girls who are exposed to sexual abuse as young children are at increased risk of being raped again and experience intimate partner violence as adults, whereas boys are at the increased risk of later becoming sexual abusers. Furthermore, they reason that women who witness violence directed against their mothers might be placed at risk for violent victimisation and boys might be at risk of becoming perpetrators. Accordingly, both victimisation and perpetration are part of a broader process of socialisation of children into adults who display dysfunctional patterns of behaviour and distorted expectations of power.

A study conducted by Angold et al. (1999) and Saban et al. (2010) found evidence that early traumatic experiences, especially if these are prolonged or repeated, may increase the risk of developing PTSD after traumatic exposures as an adult.

It is further argued that the effects of different types of trauma on psychopathology imply that the impact of trauma might sometimes be type-specific. For example, childhood emotional abuse and emotional neglect were better predictors of adult depression than physical or sexual abuse (Powers, Ressler & Bradley, 2009). Khoury et al. (2010) found a strong relationship between childhood trauma and subsequent substance use and poor mental health outcomes. In their study, physical abuse correlated with the use of all substances examined, while childhood sexual abuse was associated with cocaine and marijuana use only, proposing differential effects of abuse type on substance use. In addition, emotional abuse was correlated with cocaine use. Their study also found a strong association between adverse childhood experiences and levels of exposure to various substances. Kong and Bernstein (2009) again found that emotional abuse, physical neglect and sexual abuse were found to be significant predictors of eating psychopathologies.

A South African based study conducted by Myer, Stein, Jackson, Herman, Seedat and Williams (2009) found that exposure to early traumatic life events and childhood PTSD were associated with the increased probability that individuals would not complete high school education. As a result, the impact of trauma at early stages of development can have long-term consequences on personality formation, behaviour and mental health. Another South African study conducted by Saban, et al. (2010) examined the association between psychopathology and specific substance use in high school students to determine the nature of the associations. Their study found a significant association between PTSD and all substance use, between alcohol, cannabis and inhalant use, and between anxiety and cannabis use.

Moreover, Min et al. (2007), who examined the impact of Childhood Abuse and Neglect on Substance Abuse and Psychological Distress in Adulthood among 285 participants, found that 22% (n = 64) reported a history of emotional abuse; 29% (n = 84) physical abuse; one third (n = 93) sexual abuse; 27% (n = 79) physical neglect; and 31% (n = 88) emotional neglect.

From the above, it is clear that trauma, and especially childhood trauma, has long-term consequences on an individual and affects many areas of functioning. It is therefore important to

understand the effects of childhood trauma and the implications there-of in order to prevent psychopathologies in adulthood.

2.5 THEORETICAL FRAMEWORK

In the current study, the diathesis-stress model was used as a theoretical framework. The diathesis-stress hypothesis (Coyne & Downey, 1991) proposes that personal dispositions and social context moderate the effect of stressful life events on health and well-being (see Fig. 3). When psychological and social resources which aid adjustment to life events are absent or limited, then individuals are vulnerable to an increased likelihood of reporting a decrement in a range of health outcomes (Burns & Machin, 2012).

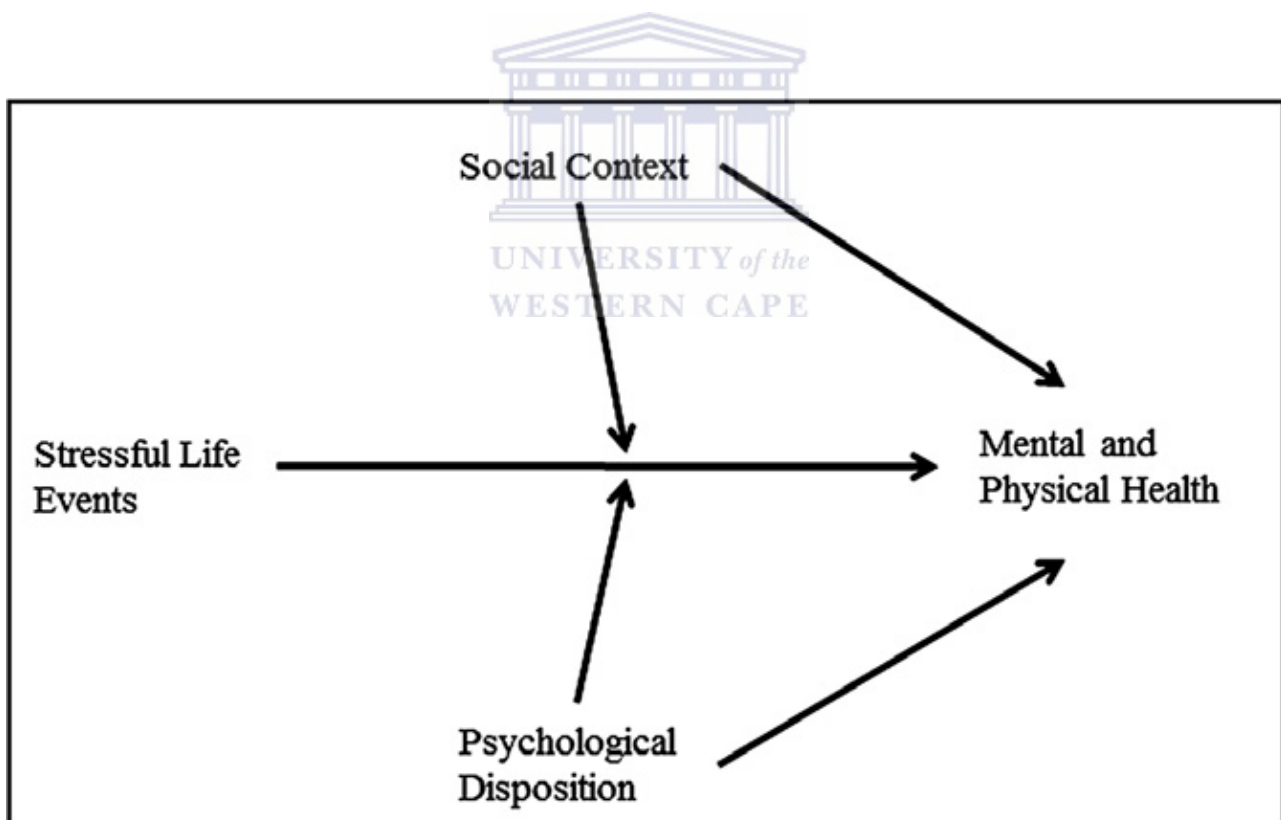


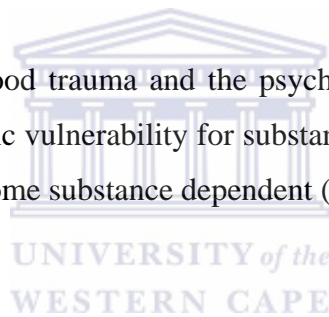
Figure 3: The diathesis-stress model: Psychological disposition and social context moderate the effects of stressful life events on mental and physical health (Burns & Machin, 2012)

According to Bushwell (2008), there is always a significant subjective component in an individual's response to a stressor. This can be seen most clearly in disasters where, although many people are

exposed to objectively the same traumatic experience, individual psychological reactions are very different and some people are able to cope better than others. Some of these individual differences are because of pre-existing social, cultural and psychological factors. The individual's reaction is as much about the actual traumatic incident as it is about their personality structure and their available personal resources, coping strategies and extended support systems.

The diathesis-stress model shows how genetic inheritance can have a large influence on behaviour. It is estimated that around 50% of a person's personality traits and cognitive abilities are due to genetics. The rest may be due to a combination of environmental and developmental factors (Burns & Machin, 2012).

In this study, the stressor is childhood trauma and the psychopathology is drug dependence. A person who for example has a generic vulnerability for substances and who experiences a trauma as a child (the stressor) might then become substance dependent (psychopathology) in adulthood.



2.6 CONCLUSION

This chapter presented a discussion on the existing literature around the psychological effect of trauma; the prevalence rates of trauma and drug dependence; and the association between psychopathology and drug abuse/dependence. It concluded with an explication of the theoretical framework that was considered within this study. The subsequent chapter will detail the methodology of the present study.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter details the methodology employed in the present study to accomplish the specific aims of the study as described in Chapter 1. It commences with a brief explanation of the specific research design, which is followed by a layout of the demographic variables of the study's participants. This chapter then presents an introduction to the DUDIT and the CTQ, as well as a review of their psychometric properties. The data collection and analysis procedures are then outlined. Finally, the ethical considerations are discussed.



3.2 RESEARCH DESIGN

The study was quantitative in nature and the research design implemented by the proposed study was a correlation design. Quantitative research designs investigate social and psychological phenomena with the aim of determining causal effects that can be generalised. Therefore, it was decided to conduct a quantitative study as it would best answer the specific research question. Furthermore, this design was chosen because it is suitable for collecting data at one point in time; it is economical and easy to manage (Pretorius, 2007). According to Shavelson (1981) correlational designs are used with the aim of describing relationships between variables through testing if such relationships do exist. Pretorius (2007) has stated that correlational designs are not interested in causality but rather whether a change in one variable influences a change in another variable, and whether the relationship is statistically significant. This study tested whether a relationship exists between childhood trauma and drug dependence.

3.3 STUDY POPULATION AND SAMPLING

3.3.1 Sample

Participants were recruited from an inpatient treatment centre in the Western Cape. Inpatient treatment centres are government subsidised rehabilitation facilities where drug dependent persons undergo treatment/rehabilitation for dependencies. Inpatient treatment centres offer a safe environment where patients will not be exposed to potentially harmful situations during their treatments as they would on the outside. The rehabilitation process includes psycho-social interventions such as therapeutic groups, social skills learning and psycho-education. The centre serves both male and female drug dependent adults from 18 years and older and offers a six week in-patient programme. The majority of patients admitted to the centre are dependent on crystal amphetamines and heroin.



3.3.2 Sampling Strategy

Participants were recruited in successive admissions until a sample size of fifty was met. The sample was drawn from the centre in the Western Cape that admits 40 (new) patients every six weeks. In a period of six months, volunteers were recruited until a minimum of fifty participants and a maximum of eighty participants were reached. The intake of the sample was limited by the rehabilitation centre.

The minimum sample of fifty was deemed to be sufficient as the t- and z- distributions became identical when $n = 50$, which would allow one to compute inferential statistics (Pretorius, 2007). Fifty participants constituted more than 60% of the clinical population and is an adequate sample. Initially 60 patients were recruited over the time period, but only 52 complied with the inclusion criteria (see below).

Admission criteria at the centre imply that only drug dependent individuals are admitted. The criteria for participation in the study included that males and females could participate irrespective of their drug of choice. Participants needed to

- be 18 years old.
- meet the DSM-IV-TR (APA, 2000) criterion for drug dependence.
- give written consent to participate in the study.

Only participants who were identified as drug dependent were included in the study. Participants who had low/mild scores on the DUDIT were excluded from the study. Patients who were actively psychotic and/or alcohol dependent were also not included in the study. This study targeted specifically substances other than alcohol.

3.4 PROCEDURE OF DATA COLLECTION

Ethical clearance was firstly obtained from the University of the Western Cape's higher degree ethical committee. Following this, a letter requesting permission was addressed to the selected institution. Arrangements were made with the management of the treatment centre for the researcher to administer the questionnaires to the volunteer group within the first week of new admissions to the centre, until a sample of 50 participants was reached

Regarding the ethical administration of the test procedures, the following was highlighted during the test administration: the anonymity of the participants, the importance of responding openly and honestly and the sensitive nature of the questions.

On the days of the data collection, the centre's management team recruited the participants and an information sheet describing the nature of the study was given to each participant and explained by the researcher before the data collection commenced (Appendix A). Prior to receiving a questionnaire, the volunteering participants received a letter of informed consent to sign (Appendix B).

The researcher ensured the participants that they had the right to withdraw at any stage and that information gathered from them was kept and treated confidentially. Social workers and professional counsellors from the treatment centre were arranged in advance to assist any participant who required trauma counselling/debriefing after the completion of the questionnaires. Questionnaires were administered in accordance with the guidelines stipulated in the respective manuals. It was estimated that the questionnaires could be completed within forty minutes.

All data collected from the study was taken and safely kept in a locked filing cabinet accessible only to the researcher. The latter is consistent with UWC's protocol in terms of data collection. The data will be locked in a safe for 5 years, after which it will be destroyed. Should UWC wish to extend on the research, the results may be used for secondary analysis.



3.5 METHODS OF DATA COLLECTION

Data collection was done by means of a battery of self-reported measures that was completed by the participants. The Drug Use Disorder Identification Test (DUDIT) (Berman, Bergman, Palmstierna & Schlyter, 2003), the Childhood Trauma Questionnaire (CTQ) (Bernstein & Fink, 1998) and a biographical questionnaire were used. These instruments provided interval data which were scored by using correlation analyses.

3.5.1 Data Collection Instruments

3.5.1.1 Biographical Questionnaire

The researcher developed a brief biographical questionnaire to elicit information on the participants' age and gender, drug of choice and age when they first started using drugs.

3.5.1.2 The Drug Use Disorder Identification Test (DUDIT)

The DUDIT was utilised to determine the degree of dependence. It was developed as a parallel instrument to the AUDIT (Alcohol Use Disorders Identification Test) for identification of individuals with drug-related problems. The purpose of the DUDIT-items is to identify use patterns and various drug-related problems (Berman et al., 2003).

The DUDIT was developed in three phases. The first phase involved an analysis of completed pilot questionnaires on drug use (AUDRUG), a literature review of existing questionnaires on drug-related problems and the generation of three test questionnaires. The three test questionnaires were tested with 21 respondents who were identified drug users. At the end of the first phase, two questionnaires were generated: the 11 item DUDIT and the 54 item DUDIT-E with extra items on drug-related issues.



In the second phase of development, the DUDIT's psychometric characteristics were evaluated on the basis of diagnostic interviews with 154 drug-using prison inmates and detoxification unit patients. In the third phase, reference values for DUDIT were produced based on a random sample of 1 500 individuals from the general population (Berman et al., 2003).

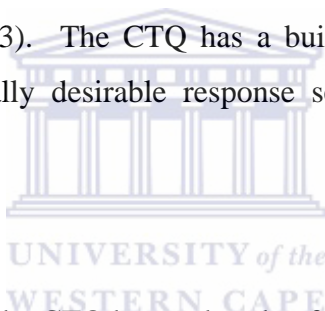
According to the DUDIT manual (Berman et al., 2003) a male client with 6 points or more probably has drug-related problems, i.e., risky or harmful drug habits that might be diagnosed as substance abuse/harmful use or dependence. A female client with 2 points or more probably has drug-related problems. A client with 25 points or more is probably heavily dependent on drugs.

The DUDIT was found to be a psychometrically sound drug abuse screening measure with high convergent validity ($r = .85$) when compared with the Drug Abuse Screening Test (DAST-10), and to have a Cronbach's alpha of .94. In addition, a single component accounted for 64.91% of total variance and the DUDIT had sensitivity and specificity scores of .90 and .85, respectively, when using the optimal cut-off score of 8. Additionally, the DUDIT showed good discriminate validity as

it significantly differentiated drug from alcohol abusers (Voluse, Garcia, Sobell, Dum, Schell & Simco, 2012).

3.5.1.3 The Childhood Trauma Questionnaire

The Childhood Trauma Questionnaire (CTQ) – a retrospective self-report of 28-items – provides brief, reliable and valid screening for histories of child abuse and neglect. The CTQ is appropriate for adolescents (aged 12 and over) and adults. The CTQ assesses the degree to which test takers have experienced five different sub-domains of childhood maltreatment, i.e. emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect. The test items comprising the five domains of childhood trauma in the CTQ draw on and reflect the five content domains present in the maltreatment literature (Crouch & Milner, 1993; Finkelhor, 1994b; Knutson, 1995; Malinosky-Rummel & Hansen, 1993). The CTQ has a built in three-item Minimization/Denial scale reasoned to control for socially desirable response sets or false-negative trauma reports (Bernstein & Fink, 1998).

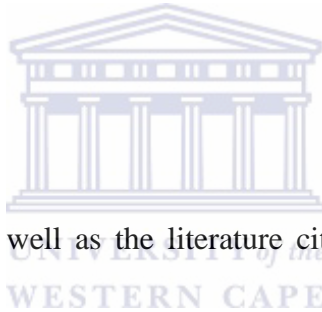


Each type of abuse is represented in the CTQ by a subscale of five items. Participants are presented with statements about childhood events, which they must rate on a five point Likert-type scale (Likert, 1931) ranging from ‘Never True’ to ‘Very Often True.’ Items include: “I didn’t have enough to eat,” “I was punished with a belt, a board, a cord, or some other hard object,” and “Someone tried to touch me in a sexual way, or tried to make me touch them” (Bernstein & Fink, 1998). In each subscale, one item is a broad labelling statement about the types of abuse being assessed (e.g. in the Sexual Abuse subscale: “I believe that I was sexually abused” (Bernstein & Fink, 1998, p. 53), while at least three of the subscale items are behaviourally specific examples of the type of abuse (e.g. in the Sexual Abuse subscale: “Someone tried to make me do sexual things or watch sexual things” (Bernstein & Fink, 1998, p. 53). The summed total of sub-domain scores indicate the severity of maltreatment and cut scores are available for establishing whether the participant is a likely survivor of childhood trauma (Bernstein & Fink, 1998).

Internal consistency reliability coefficients for the CTQ scales were computed with Cronbach’s alpha for all of the validation samples. Sexual Abuse, Emotional Neglect, Emotional Abuse,

Physical Abuse have reported coefficients of .93 - .95, .88 - .92, .84 - .89, and .81 - .86, respectively. Over a 3 ½ month period, the test-retest coefficient was calculated at close to 0.80. Factor analysis tests on the five-factor CTQ model showed structural invariance, which demonstrates good validity (Bernstein & Fink, 1998).

In general, many studies suggest that the instrument has strong psychometric properties in terms of various types of reliability and validity both in clinical and community samples (Bernstein, Stein, Newcomb, Walker, Pogge, Ahluvalia, Stokes, Handelsman, Medrano, Desmond & Zule, 2003). In a South African study, Walters (2010) found that the CTQ demonstrated ‘good’ internal consistency (Cronbach’s $\alpha = .881$) in a clinical sample, and ‘acceptable’ internal consistency (Cronbach’s $\alpha = .780$) in a community sample.



3.6 HYPOTHESIS

Based on the information above as well as the literature cited, the following hypothesis can be drawn:

Ho: There is no relationship between specific childhood trauma and drug dependence.

H1: There is a relationship between specific childhood trauma and drug dependence.

3.7 DATA ANALYSIS

Descriptive data analyses were implemented as a statistical technique to summarise data, and inferential data analyses were used to determine the relationship between the variables. Data was analysed by using the Statistical Package for Sciences (SPSS) computer programme 19.0 version. The results were presented by means of correlation. Multiple correlation analyses were used to test the hypothesis and analyse the nature of the relationship between specific childhood trauma and drug dependence. Correlation analyses measures the strengths of the relationship between the variables (Weiers, 2011).

In summary, the issues highlighted within this chapter were addressed to ensure smooth statistical analyses. Sample size, standardised administration procedures, ethical considerations and clear explication of the analytic techniques to be conducted are central issues in facilitating the implementation of the research design.

The results of each of the statistical analyses are presented in the next chapter.



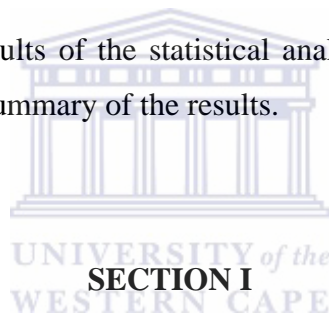
CHAPTER 4

RESULTS

4.1 INTRODUCTION

This chapter presents a description of the clinical sample's participants and the results of the statistical analyses conducted. The chapter is presented in two sections. The first section provides a description of the clinical sample's participants in terms of various demographic statistics that were collected during the research process.

The second section presents the results of the statistical analyses relevant to the clinical sample. The chapter concludes with a brief summary of the results.



4.2. CLINICAL SAMPLE

The clinical sample ($n = 52$) consisted of male ($n = 43$) and female ($n = 9$) adults who were inpatients at a rehabilitation centre in the Western Cape and met the DSM-IV-TR (APA, 2000) criterion for drug dependence. The sample was ethnically diverse and ranged in age from 18.00 to 48.00 years ($M = 27.71$ $SD = 7.578$).

A further breakdown of the sample characteristics are contained in Tables I – VI.

Table 1: Age distribution of the Participants

Age Group (Year)	Number	Percentage
18 – 27	34	65
28 – 37	10	19
38 – 47	7	14
48 and above	1	2
Total	52	100

The table above depicts the age distribution of the participants. The majority of participants fell within the 18–27 year age group.

Table 2: Sex distribution of the participants

Sex	Number	Percentage
Male	43	83
Female	9	17
Total	52	100

Table 2 indicates that there were more male than female participants in this study.

Table 3: Type of self-reported drug abuse

Drug Type		Frequency	Percentage
Valid	Heroin	9	17.3
	Other	2	3.8
	Poly substances	25	48.1
	Tik	16	30.8
	Total	52	100.0

According to the table above, most participants reported multiple substance abuse, followed by the abuse of tik.

Table 4: Severity of self-reported drug abuse

Type of drug used	Number	Severity of abuse (DUDIT score) average score out of 44
Heroin	9	38.33
Tik	16	38.63
Poly Substances	25	38.64
Other	2	32.5

Table 4 indicates that all the participants reported severe drug abuse.

Table 5: Age of Onset of Drug Abuse

	Age	Frequency	Percentage
Valid	12	3	5.8
	13	5	9.6
	14	9	17.3
	15	8	15.4
	16	9	17.3
	17	7	13.5
	18	2	3.8
	19	2	3.8
	20	2	3.8
	21	1	1.9
	22	1	1.9
	24	1	1.9
	27	1	1.9
	42	1	1.9
	Total		52

According to Table 5, the youngest age of onset of drug abuse of all the participants was 12 years and the oldest was 42 years.

Table 6: Type of Childhood Trauma

Type of Childhood Trauma	Number	Percentage
Emotional abuse	28	54
Physical abuse	23	44
Sexual abuse	14	27
Physical neglect	18	35
Emotional neglect	9	17

Table 6 indicates that emotional abuse and physical abuse were the most prevalent type of childhood trauma reported by the participants.

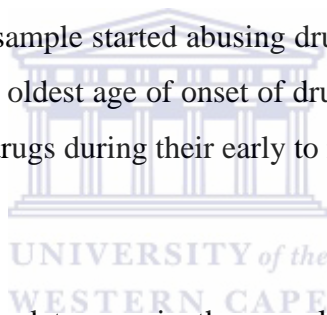
Table 7: Type and severity of Childhood Trauma

		Emotional abuse	Physical abuse	Sexual Abuse	Emotional neglect	Physical neglect
N	Valid	52	52	52	52	52
	Missing	0	0	0	0	0
Mean		13.15	9.65	8.00	11.06	8.73
Std. Deviation		5.199	4.224	5.145	4.412	3.504
Range		20	18	20	16	13

From the table above it is evident that emotional abuse and physical abuse were the most common and severe type of childhood trauma reported by the participants.

According to the statistics, the majority of drug abusers (34%) were from the age group of 18–27 with a mean age of 27.71. In this study 83% of the drug abusers were male ($n = 43$) with 17% female ($n = 9$). The profile of self-reported drug abuse in this sample revealed that 48% ($n = 25$) were dependent on poly substances, 31% ($n = 16$) were dependent on tik and 17% ($n = 9$) were dependent on heroin. 4% ($n = 2$) reported to be dependent on other drugs. The statistics revealed that all the patients in the sample were severely dependent on drugs: 96% of the sample achieved an average score of 38.50 out of 44 on the DUDIT, while 4% achieved an average score of 32.5 out of 44.

Inspection of Table V revealed that most of the patients started abusing drugs during their teenage years ($n = 47$), with ages 14 years ($n = 9$), 15 years ($n = 8$), 16 years ($n = 9$) and 17 years ($n = 7$) being the ages at which most of the sample started abusing drugs. The earliest age of onset of drug abuse was 12 years ($n = 3$) while the oldest age of onset of drug abuse was 42 years ($n = 1$). Only a few patients ($n = 6$) started abusing drugs during their early to mid-twenties.



The profile of self-reported childhood trauma in the sample revealed that 54% ($n = 28$) were emotionally abused, 44% ($n = 23$) were physically abused, and 27% ($n = 14$) were sexually abused. 35% ($n = 18$) reported to be physically neglected whereas 17% ($n = 9$) reported being emotionally neglected. Although not statistically significant due to the small sample of female participants, it is still important to note that further analysis of the sexual abuse category revealed that almost 67% ($n = 6$) of the female participants ($n = 9$) reported being sexually abused during childhood.

SECTION II

The hypothesis as set out in Chapter 3 was developed to operationalise the research topic and to allow for the variables of interest to be tested. The techniques described in Chapter 3 were chosen as the mean to test the stipulated hypothesis.

The following section thus presents the results of the analyses.

4.3 HYPOTHESIS TESTING

To test the hypothesis of this specific study, the Pearson Product Moment Correlation analyses were conducted and the results are presented below.

Ho: There is no relationship between specific childhood trauma and drug dependence.

Table 8: Correlation between childhood emotional abuse and drug dependence in adulthood

		Emotional abuse	DUDIT Score
Emotional abuse	Pearson Correlation	1	.390**
	Sig. (1-tailed)		.002
	N	52	52
DUDIT Score	Pearson Correlation	.390**	1
	Sig. (1-tailed)	.002	
	N	52	52
**. Correlation is significant at the 0.01 level (1-tailed).			

The correlation analysis found a significant positive relationship between emotional abuse and drug dependence ($r = .390$; $p < 0.01$, $p = .002$). An alpha level of 0.01 is a stringent test of the correlation which increases confidence in the result. This indicates that a significant relationship exists between emotional abuse and drug dependence in adulthood.

Table 9: Correlation between childhood physical abuse and drug dependence in adulthood

		Physical abuse	DUDIT Score
Physical abuse	Pearson Correlation	1	.295*
	Sig. (1-tailed)		.017
	N	52	52
DUDIT Score	Pearson Correlation	.295*	1
	Sig. (1-tailed)	.017	
	N	52	52
*. Correlation is significant at the 0.05 level (1-tailed).			

Similarly, a significant positive relationship exists between physical abuse in childhood and drug dependence in adulthood ($r = .295$; $p < 0.05$). SPSS has used the 0.05 alpha level increasing confidence in the correlation coefficient. Thus it can be concluded that a significant relationship exists between physical abuse in childhood and drug dependence in adulthood.

Table 10: Correlation between childhood sexual abuse and drug dependence in adulthood

		Sexual abuse	DUDIT Score
Sexual abuse	Pearson Correlation	1	.102
	Sig. (1-tailed)		.236
	N	52	52
DUDIT Score	Pearson Correlation	.102	1
	Sig. (1-tailed)	.236	
	N	52	52

The correlation analysis did not find a significant relationship between childhood sexual abuse and drug dependence during adulthood.

Table 11: Correlation between childhood emotional neglect and drug dependence in adulthood

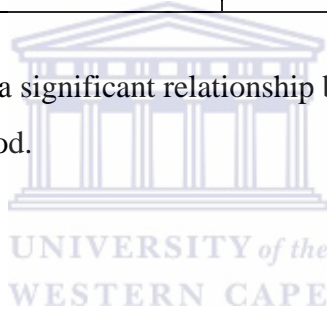
		Emotional neglect	DUDIT Score
Emotional neglect	Pearson Correlation	1	.173
	Sig. (1-tailed)		.109
	N	52	52
DUDIT Score	Pearson Correlation	.173	1
	Sig. (1-tailed)	.109	
	N	52	52

The correlation analysis did not find a significant relationship between childhood emotional neglect and drug dependence in adulthood.

Table 12: Correlation between childhood physical neglect and drug dependence in adulthood

		Physical neglect	DUDIT Score
Physical neglect	Pearson Correlation	1	.067
	Sig. (1-tailed)		.320
	N	52	52
DUDIT Score	Pearson Correlation	.067	1
	Sig. (1-tailed)	.320	
	N	52	52

The correlation analysis did not find a significant relationship between childhood physical neglect and drug dependence during adulthood.



4.4 CONCLUSION

The results of the analysis show that the hypothesis was not rejected. However, the results only indicate a significant relationship between childhood emotional abuse and drug dependence in adulthood and between childhood physical abuse and drug dependence in adulthood. This suggests that childhood emotional abuse and childhood physical abuse are significant predictors or risk factors for drug dependence in adulthood.

The analysis did not find any relationship between childhood sexual abuse-, childhood emotional neglect- and/or childhood physical neglect and drug dependence in adulthood. It could therefore be concluded that childhood sexual abuse, childhood emotional abuse and childhood physical neglect, in this study, were not predictors or risk factors for drug dependence during adulthood.

The subsequent chapter will present a contextualised discussion of the results/findings, by referring to the reviewed literature to either support or contradict the findings. The diathesis-stress model will be incorporated to explain and contextualise the findings.



CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

This chapter interrogates and discusses the findings of the current study which sought to establish whether a relationship does exist between childhood trauma and drug dependence in adulthood.

Results of the statistical analysis offered in the previous chapter are interrogated and discussed within the context of the current study's aims and objectives, earlier literature and the selected theoretical framework.

The limitations of the current study, recommendations for future research in this area and a conclusion are also offered.

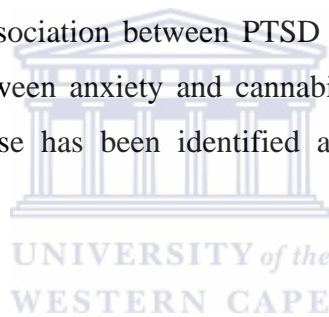


5.2 THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND DRUG DEPENDENCE IN ADULTHOOD

With regard to the relationship between childhood trauma and drug dependence in adulthood, this study exhibits that a significant relationship exists between emotional abuse in childhood and drug dependence and between physical abuse in childhood and drug dependence. No significant relationship was found between childhood sexual abuse and drug dependence, between childhood emotional neglect and drug dependence or between childhood physical neglect and drug dependence in adulthood.

The prevalence of childhood trauma amongst the current sample appears consistent with earlier studies in South Africa and internationally. Childhood trauma was reported by all participants of the current study.

A study conducted by Min et al. (2007) revealed that childhood trauma was directly and indirectly related to substance abuse (and psychological distress). Their study indicated that childhood trauma may serve as a common etiological factor in substance abuse and psychological distress. Khoury et al. (2010) also found a strong relationship between childhood trauma and substance use and poor mental health outcomes. In their study, physical abuse correlated with the use of all substances examined, whereas emotional abuse was correlated with cocaine use. However, they also found a positive correlation between childhood sexual abuse and cocaine and marijuana use. Saban et al. (2010) again found a significant association between PTSD and substance use, between alcohol, cannabis and inhalant use, and between anxiety and cannabis use. Gil-Rivas et al. (1999) have stated that childhood physical abuse has been identified as a risk factor for drug abuse and dependence.



Findings from the current study also concur with that of Min et al. (2007), whose study found that 22% (n = 64) reported a history of emotional abuse; 29% (n = 84) physical abuse; one third (n = 93) sexual abuse; 27% (n = 79) physical neglect; and 31% (n = 88) emotional neglect. Similarly, this study found that more than half of the respondents (54%; n = 28) were emotionally abused, while 44% (n = 23) were physically abused. Childhood sexual abuse was reported by 27% (n = 14) of respondents whereas 35% (n = 18) reported physical neglect. Lastly, a smaller percentage (17%; n = 9) of the sample reported having been emotionally neglected.

Although not statistically significant due to the small sample of female participants in the current study, it is still important to note that further analysis of the sexual abuse category revealed that almost 67% (n = 6) of the female participants (n = 9) reported being sexually abused as children.

Findings from the current study are also in keeping with earlier literature related to the different types of childhood trauma (Min et al., 2007). This is consistently the case across various types of trauma, except for the category of emotional neglect. Whilst the occurrence of emotional neglect remains concerning, a comparatively small number of participants (17%) reported this type of trauma. This differs markedly from international findings which posit that emotional neglect is the most common form of reported childhood trauma (41.5%) (Sadock & Sadock, 2007).

In this study, emotional abuse had the highest prevalence rate with a reported 54% having been emotionally abused as children. International prevalence rates of emotional abuse revealed that between 8–9% of girls, and approximately 4% of boys experienced severe emotional abuse during childhood (Gilbert et al., 2009). The results of this study is also in keeping with results found by Madu (2002), who found a 79% prevalence rate for emotional abuse. Although the current study's results are not representative of the broader South African context, the findings from both national and international studies suggest that emotional abuse is very common.

The current study also suggests that physical abuse is common. A retrospective study in South Africa done by Madu (2002) found a 16% prevalence rate of physical abuse in adolescents. Even though the findings from the retrospective study are lower than the findings from the current study, the findings from other studies (Carr, 2006; Gilbert et al., 2009) suggest that this might be due to the fact that only a small percentage of these cases are investigated by the local child protection agencies.

With regard to childhood sexual abuse, the current study's findings revealed that 67% of female respondents reported a history of childhood sexual abuse. Even though the small number of female participants limit the conclusions that can be drawn from this finding, a study done by Richter (2003) found that the rates of childhood sexual abuse obtained in retrospective studies with South African adult populations ranges from 26% to 54% for participants, irrespective of sex. A study assessing psychopathology amongst a group of 97 adolescents and children who attended a Youth Stress Clinic in South Africa found that 53% reported sexual abuse (Kaminer & Eagle, 2010). Gil-Rivas et al. (1999) also found that childhood sexual abuse is a risk factor for drug abuse and

dependence. Other studies (Read, et al., 2005) also found an association between childhood sexual- and childhood physical abuse and substance abuse. This implies that sexual abuse is very common and that many children, who experience this type of abuse, are at risk for developing drug dependence.

According to the DUDIT manual (Berman et al. 2003) clients with 25 points or more are probably heavily dependent on drugs. Although the study revealed that all the patients in the sample were severely dependent on drugs (96% of the sample achieved an average score of 38.50 out of 44 on the DUDIT, while 4% achieved an average score of 32.5 out of 44), only childhood emotional abuse and childhood physical abuse had a positive correlation to drug dependence.

The aforementioned findings are supported by the diathesis-stress model, in that the development of mental disorders is attributed to exposure to stressors in the presence of a diathesis or vulnerability to a particular disorder. This model is a way to understand the interaction between genetics and environment in causing mental illness. It states that people inherit a genetic tendency towards a mental disorder – diathesis – which is acted upon by environmental stimuli – stress – to cause the disorder to appear.

The current study shows how early psychological distress, such as childhood trauma – which is a diathesis – is related to the development of mental disorders, e.g. drug dependence, in adulthood.

5.3 CLINICAL IMPLICATIONS

The present study has direct relevance for assessment, intervention and future research in the area of substance use disorders. This study demonstrated a possible effect that childhood trauma might have on someone, later in life. As a result, researchers and clinicians should be more aware of the damaging and traumatic effects of childhood trauma on individuals.

Furthermore, the study implies that a history of childhood trauma might be a risk factor for substance use disorder later in life. Therefore, it is important for clinicians to assess childhood abuse in individuals who present with substance abuse and/or dependence as these traumas may still be unresolved. Thorough clinical assessment of each client can help determine the severity of trauma-related symptoms and assess appropriate intervention.

Moreover, when clinicians and other mental health practitioners are aware that the children they are treating are currently being abused, then interventions can immediately be put in place to try to prevent, not only substance related disorders, but comorbid psychiatric disorders as well. Interventions, promoting coping skill development to reduce or prevent substance abuse and psychological problems associated with childhood trauma, will benefit individuals who have suffered childhood trauma.



5.4 LIMITATIONS

Whilst the field has made progress in helping to understand the impact of trauma in young children, a considerable gap exists between the amount of systematic research conducted with young children in comparison with older children, adolescents and adults. Additionally, there are several limitations with the existing studies that need to be taken into consideration.

First, the validity of the adult retrospective self-report measure of childhood trauma may be compromised by fallibility of memory and social desirability bias. Further, explicit details of trauma (duration, age at which abuse first occurred, relationship to perpetrator) are lacking and as such might not fully capture the experience of childhood trauma and its effect on substance abuse (Min et al., 2007).

Second, this study did not include alcohol use disorders or any other psychiatric disorders, which might also explain a possible relationship between childhood trauma and substance abuse or dependence.

Thirdly, childhood trauma increases the risk for adult re-victimization, which undermines psychosocial functioning (Arata, 2002). Thus, adult re-victimization could function as a mediator. Without a measure of adult re-victimization, the study might overestimate the direct effect of childhood trauma on the outcome, but its total effect will be the same.

The study relied on a relatively small sample. This limitation was particularly relevant when conducting the correlation analyses. Small samples and unequal groups can impact the power of a moderational analysis using categorical variables and lead to lower effect sizes or failure to detect relationships (Aguinis, 2004). The findings of this study may have been hampered by a low number of participants.

Lastly, the study did not include the socio-economic statuses (e.g. education, income, employment, etc.) of the participants, which might reveal other important information.



5.5 CONCLUSIONS

Despite these limitations, the present study adds to a growing body of knowledge regarding the long-term effects of childhood trauma as it simultaneously examines interrelationships between different dimensions of adult functioning. Further, this study expands empirical understanding of the processes underlying the connection between childhood trauma and its consequences in adulthood (Min et al., 2007). It is consistent with what Merrill, Thomsen, Sinclair, Gold, & Milner (2001) have termed “third generation research” (p. 992) of child abuse, which goes beyond documenting damaging effects of trauma or identifying moderators to attempting to specify mediating processes.

5.6 RECOMMENDATIONS

The following recommendations can be considered in future: the male-to-female ratio would be an important aspect to keep in mind as this might significantly influence the results of the studies and

shed more light on the impact of childhood traumas across different genders. Secondly, conducting epidemiological research would document prevalence, onset and longitudinal course of psychological reactions in young children and the impact this has on other areas of functioning. Thirdly, develop and evaluate the feasibility and effectiveness of prevention and treatment programs for individuals exposed to a variety of trauma types.



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APPENDICES

APPENDIX A: CONSENT FORM



Department of Psychology
University of the Western Cape
Private Bag X 17

**UNIVERSITY of the
WESTERN CAPE** Bellville, 7535

Tel: 27 21 959 2283

Title of Research Project: The relationship between childhood trauma and drug dependence in an in-patient treatment centre in the Western Cape

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name.....

Participant's signature.....

Witness.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Study Coordinator's Name: Mr. K. Kamaloodien

University of the Western Cape

Private Bag X17, Belville 7535

Telephone: (021) 959-2826

Cell phone: 082 873 1699

Email: kkamaloodien@uwc.ac.za



APPENDIX B: INFORMATION SHEET



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

INFORMATION SHEET

Project Title: The relationship between childhood trauma and drug dependence in an in-patient treatment centre in the Western Cape

What is this study about?

This is a research project being conducted by Mr. Wynand Gerber (Master's student) at the University of the Western Cape. The purpose of this research project is to gain insight into the possible risk factors for drug dependence. We invite you to participate in this study since you can contribute significantly to our understanding of drug dependence.

What will I be asked to do if I agree to participate?

You will be asked to complete two questionnaires, namely the Childhood Trauma Questionnaire (CTQ) and the Drug Use Disorder Identification Test (DUDIT), as well as a short biographical information page. We will ask you to be honest and to fill in the questionnaires to the best of your ability. The completion of the two questionnaires and the biographical information page should not take longer than 40 minutes to complete.

Would my participation in this study be kept confidential?

Any information that is obtained in connection with this study is strictly confidential. The study is anonymous and will not contain information that may personally identify you. There are no spaces provided anywhere for you to fill in personal details about yourself e.g. your name, address, telephone number, etc. Furthermore, all the information is strictly for Mr. Gerber's and his

supervisor's eyes only and nobody will have access to any of the information. All the information gathered will be stored securely. If we write a report or article about the current research study, your identity will be protected as no personal information is provided during the study.

What are the risks of this research?

We expect that any risks, discomforts, or inconveniences will be minor and we believe that they are not likely to happen. If discomforts become a problem, you may discontinue your participation. If the questionnaires causes some feelings to emerge and leave you unsettled or in distress, standby counselling staff will be arranged for these instances.

What are the benefits of this research?

It is not likely that you will benefit directly from participation in this study, but the research should help us to help other people who find themselves in similar positions as yourself.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary and you may choose not to take part at all. If you decide to participate and change your mind, you may stop participating at any time.

Is any assistance available if I am negatively affected by participating in this study?

Yes, as mentioned should you need assistance standby counselling staff will be available at the centre.

What if I have questions?

This research is being conducted by Mr. Wynand Gerber (Master's student), under supervision of Mr. Kamal Kamaloodien at the Psychology Department at the University of the Western Cape. If you have any questions about the research study itself, please contact Mr. Wynand Gerber at:

083 5070 219

wynandgerber12@gmail.com

or

Mr. Kamal Kamaloodien

kkamaloodien@uwc.ac.za

082 873 1699

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department: Prof. K. Mwaba

Dean of the Faculty of Community and Health Sciences:

University of the Western Cape

Private Bag X17

Bellville 7535

021-959 2283



This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

APPENDIX C: BIOGRAPHICAL QUESTIONNAIREAGE: *(please tick the appropriate block)*

18	19	20	21	22	23	24	25	Older (please state age)
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SEX: *(please tick the appropriate block)*

MALE	FEMALE
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WHEN DID YOU FIRST START USING DRUGS?

WHAT IS YOUR DRUG OF CHOICE (IT CAN BE MORE THAN ONE)
