UNIVERSITY OF CAPE TOWN

An investigation of the relationship between mental health and recidivism among incarcerated youth offenders in South Africa: The role of substance use

A dissertation submitted in partial fulfilment of

the requirements for the award of Degree of

DOCTOR OF PHILOSOPHY

In the Department of Social Work

University of Cape Town

January 2020

BY

KWANELE SHISHANE (SHSKWA001)

Supervisor: Professor Johannes John-Langba

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COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people, has been attributed and has been cited and referenced.

Signature: Signed by candidate …… Date: 31 January 2020……

DEDICATION

All glory and honour goes to the Creator for all that I am and all that I have accomplished and yet to accomplish. I dedicate this dissertation to my parents, Mr Themba Shishane and Mrs Nomusa Shishane, my siblings Gugu and her husband Khe, to Thale, Stha, and Mluleki. I also dedicate it to my incredible nieces and nephews Zombuso, Vukile, Zenande and Ngcweti. My family's love and support kept me going when I had little hope and energy to persevere. Thank you all for waking me up and making sure that I worked every night. I have committed and will continue to commit myself in all that I do because it's all for you guys. I also dedicate this dissertation to my late grandparents, particularly my grandmothers Agnes and Thokozile who never got an opportunity to go school but always encouraged and supported me to study (Nahamba ningasabonanga imisebenzi yenu). Finally, I'd like to dedicate this dissertation to the entire Shishane clan as this will be the first doctoral degree in my family. I hope it will be the first of many! Shishane, Magabha, Snandi, Cathu Mntwana, Vela Bahleke, kwabadla bachelele…ngeke nganiqeda.

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ABSTRACT

Theoretical models of crime underlying the deterrent approach to crime control often fail to account for the role of mental health in mediating deviance. Nor does this approach account for the role of system responses, unique to a post-apartheid context. There is paucity in the literature on the role of mental health on recidivism in South Africa. This study was therefore designed to determine the relationship between mental health and recidivism among incarcerated youth offenders in South Africa and the role of substance use. The Ecological Systems Theory and the Theory of Planned Behaviour provided the theoretical frameworks for this study. A quantitative exploratory research design was used. 280 youth offenders (male and female, aged 18-35) incarcerated at a Durban Maximum Correctional Service in KwaZulu-Natal that do not have a known psychiatric diagnosis were sampled, using multi-stage random sampling. A self-administered structured questionnaire was used to collect the data. Data were analyzed using SPSS. Several statistical analyses were used in this study to include, descriptive analysis, multiple regression, binary logistic regression, cluster analysis, factor analysis, and chi-square analysis. Descriptive analysis showed that the rate of recidivism (re-offending) among this offender population is 32.4% (n=82), while 67.6% (n=171) of the participants have not recidivated. Descriptive analysis showed that the prevalence of anxiety symptomatology is very high where all 100% (n=280) participants presented with anxiety symptomatology. The prevalence of depression is 99.6% (n=279). The prevalence of appetitive aggression (attraction to criminal behaviour) is 52.1% (n=146). The prevalence of substance use meriting the need for substance dependence assessment is 71.8% (n=201). The prevalence of pro-criminal attitude is 52.1% (n=146). The prevalence of perceived control to execute future criminal behaviour is 55.7% (n=156), and the prevalence of subjective

norm influence to executing future criminal behaviour is 54.3% (n=128). Multiple regression analysis showed that anxiety and depression do not significantly predict recidivism ($F(2,249) = .096$, $p>.05$), anxiety, depression and appetitive aggression do not significantly predict recidivism ($F(3,247) = .361$, $p>.05$), anxiety, depression and substance use do not significantly predict recidivism ($F(3,245) = .824$, $p>.05$). Multiple regression of the Theory of Planned Behaviour variables i.e. attitude, subjective norms, perceived behavioural control and intention do not significantly predict recidivism ($F(4,237) = .298$, $p>.05$). Binary logistic regression showed that anxiety, depression, substance use and appetitive aggression do not significantly predict recidivism. Similarly, attitude, subjective norms, perceived behavioural control and intention, did not significantly predict recidivism. However, cluster analysis showed that the combination of anxiety and depression disorder, substance use and appetitive aggression do increase the likelihood of recidivism. In this study, Cluster 1, "*low risk*" constituted 42.6% of the population. This cluster has low levels of anxiety, low levels of depression, moderate appetitive aggression and somewhat low substance use. Cluster 2 "*high risk*", constituted 26.5% of the population. This group presents with high anxiety and high depression symptomology, moderate appetitive aggression and high substance use. This cluster presents with a high mental health and high substance use crisis. Cluster 3 "*high risk*" constituted 17.0% of the sample. This cluster presents with high anxiety disorder, high depression symptomology, moderate high appetitive aggression and moderate high substance use. Similar to cluster 2, this group has a high mental health crisis, with a moderately higher attraction to criminality. Cluster 4 "*low risk*" consisted 9% of the population. Overall, similar to cluster 1, cluster 4, has low anxiety disorder, low depression disorder symptomology. This group has somewhat low appetitive aggression and

moderate substance use. Overall, cluster analysis shows that appetitive aggression plays a key role in distinguishing risk for recidivism among the recidivist and non-recidivist clusters. However, cluster analysis using the variables (attitude, perceived behavioural control, subjective norms) failed to distinguish the likelihood of recidivism between the recidivist and non-recidivist clusters. This study promotes social change by highlighting the need for further research that examines combined factors that increase recidivism. Findings from this study are helpful to health and criminal justice organizations as they indicate the need for strengthening the provision of programs that address mental health screening, diagnosis and treatment as well as programs that address appetitive aggression issues in efforts to mitigate recidivism.

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CHAPTER 1
INTRODUCTION

This chapter consists of five sections; it presents a contextual understanding of the background of the problem under study; as well as the rationale and significance of the research. Furthermore, it states the research objectives and research questions. Following this is a definition of all significant concepts.

1.1 Background and context

Mental illness and substance use disorders have been postulated as the main predictors of recidivism among youth offenders (Buckmon, 2015). Recidivism continues to be a constant social problem (Jung, 2010). Recidivism alludes to a pattern of repeated sentencing and the re-arrest of a person for another crime following release from a correctional facility (Montoya, 2009). The issue if incarceration and recidivism cripples' structures that hold communities together, diminish opportunities to employment whilst increasing unemployment, which ultimately leads to poor economic development (Western & Pettit, 2010). In as much as recidivism is an issue in South Africa, it is equally a sign that there are challenges within the system. It reflects that there are members of our society that are trapped in the cycle of crime, where state strategies put in place to redress this challenge, are not as successful as they are intended to be, consequently, recidivism remains a challenge (Huggins, 2015).

Various factors are linked to repeated criminal behavior, such as substance use and mental illness (Buckmon, 2015) appetitive aggression (Weierstall, Hinsberger, Kaminer, Holtzhausen, Madikane & Elbert, 2013), socioeconomic status, sexual

orientation, age, population group/ethnicity, social support (Spjeldness, & Goodkind, 2009) low level of education, unemployment, antisocial peers (Matejkowski, Drain, Solomon & Mark (2011), gang activity, and criminal history (Wikoff, Linhorst, & Morani, 2013). These factors reflect some of the inheritances post-Apartheid South Africa inherited from the Apartheid regime, which was and of itself dire violence that was founded on the criminalization of non-whites and predominantly African/black people, which were and still are the majority of the population.

Historically, if a community deemed certain behaviour as anomalous, unacceptable or immoral it was managed through tradition courts as there were no correctional prisons (Khwela, 2014). In rural areas, traditional courts were managed by community chiefs and their assisters. For example, the 'Lekhotla' (a community conflict resolution gathering) (Dlamini, 1988; Hlatshwayo, 2002; Skelton and Frank, 2001) generally practised by the Sotho people, the chief would convene a hearing meeting including the wrongdoer, the victim, the wrongdoer and victim families and the community members. Through traditional courts, peace, restoration and reconciliation were fostered. The focus was on seeking ways to resolve the issue through involving the victim, the offender and the community. This restorative justice approach was founded on the premise that the entire fabric of the community is damaged when a member within the community has been violated. Therefore, necessitating the involvement of the community in assisting the victim to heal and the offender to rehabilitate (Dlamini, 1988; Hlatshwayo, 2002).

Prisons, now referred to as correctional facilities did not originate from Africa, they were a Western device utilized to restore an offenders' behaviour into that of a law-abiding citizen (Khwela, 2014). Where the convention of the law was unfair and unjust and the way in which courts judged the offender's characteristics

was commonly understood to refer to innate traits that were often associated with race (Saccomano, 2019). In those times, the notion was that non-white were inferior and this was used as a justification for their oppression (Saccomano, 2019).

In South Africa, correctional centres were brought by the Dutch colonists after the British had concocted the reformatory policy (Khwela, 2014). Thus, an English common law tradition is shared by South Africa and England, especially when it comes to criminal law (Badejogbin, 2015). Additionally, the Roman-Dutch law also has an influence on South Africa legal system (Badejogbin, 2015). Nonetheless, criminal law and sentencing commonalities can be found in their law histories (Badejogbin, 2015). While sentencing systems amongst these countries have progressed significantly due to different factors, the basics may, in essence, not differ (Badejogbin, 2015).

Differences in sate progress and context may account for some of the distinctions that exist (Badejogbin, 2015). In the 1840s, inmates were used for working on public projects (Khwela, 2014). The De Beers mining company initiated private penitentiaries in South Africa and back then, most inmates were individuals who had not adhered to pass laws authorized by the apartheid system (Department of Correctional Services, 2005).

Fanon (as cited in Thame, 2011) argued that colonialism was dependent on punitive measures such as violence and the assaults of natives' cultures and their relegation to spaces of filth. The questioning of the native's humanity particularly in racial terms, that came from colonialism was an act of violence in itself and criminalization of black people in their own home grounds.

These types of violence have been carried over into the postcolonial state (Fanon, as cited in Thame, 2011).

This is true for South Africa as inheritances brought about by the apartheid regime continue to persist at a very high degree. For example, inequality, poverty, violence and so forth. As such, it has been argued that studies seeking to understand crime in South Africa cannot view it in isolation, and disregard the inherited inequality and culture of violence the apartheid regime bestowed on South Africa (Simpson, 1993). This has been entrenched in the normalisation of crime and violence, which is perceived as an essential method of solving social, economic, political and domestic conflict (Simpson, 1993). It has similarly been evident in politics, where violence has come to be regarded as a necessary method of both the maintenance of political power and an accepted way of accomplishing change or resolving a conflict. One explanation for this, as indicated by Cherki (as cited in Thame, 2011) is that mental and physical freedom is intricately linked to the process of decolonization. Which is why, violence has come to be seen as a necessary means in order to undo the original violence that inflicted the alienation in the first place (Cherki as cited in Thame, 2011).

The racially-based, antagonistic generalizations created by apartheid, accompanied by political intolerance, continue to stay closely related to financial constraints and infringing destitution for many South Africans (Simpson 1993). Due to excessive rates of poverty and unemployment, conditions are created which beget some of the social ills South Africa is currently faced with including, social, political and criminal violence. The violence has escalated to "black on black" violence (Simpson, 1993) recently seen through the xenophobic attacks where some South African justified their actions to attack African migrants to numerous factors, such lack of employment, cheap labour which leads to unfair competing ground, women, drugs and crime. On one end, social conditions in a post-Apartheid state promote violence and crime as normative behaviour for Black South Africans, while

simultaneously, using punitive measures to correct their behaviour. Fanon (as cited in Thame, 2011: 89) argued that for nations to do away with violence, 'it requires the nation to say yes to humanity, yes to justice, yes to freedom, no to oppression no exploitation and no to alienation" (p89).

In saying yes to humanity, the death penalty became unlawful in 1995. The Constitutional Court in South Africa declared that the death penalty rejected the probability that those sentenced could be rehabilitated, which was dismissed as it was in conflict with the spirit of Ubuntu (a notable South African notion regarded as respect for human dignity and the understanding that the life of any human being is as significant as one's own) (Ndike, 2014).

Deducing from this notion, when South Africa became democratic, the democratic South African constitution shifted the Department of Prisons to the Department of Correctional Services in order to shift from punishment and mere imprisonment to correctional and rehabilitative centres for offenders (Singh, 2016). Under the rehabilitative or restorative justice framework, rehabilitation focuses on the rectification of culpable conduct, which can be accomplished through interventions that seek to change attitudes, behaviour and social conditions (Department of Correctional services, 2005). Programs that are said to be initiated by the Department of Correctional Services in efforts to rehabilitate and reintegrate offenders include, rehabilitation programs within correctional centres that focus on offenders' spirituality, emotional well-being, education, victim-offender mediation/dialogue, parole placement-offender reintegration and diversion programs (DCS, 2017/18).

Additionally, rehabilitation programs include programs aimed at acclimatizing newly incarcerated persons into the correctional center; anger management programs; skills development programs, restorative justice process preparatory programs,

programs focused at addressing sexual offenses, programs targeted to substance use, behavioural change programs that target gang-related issues, economic crime programs that address issues of theft and fraud, programs that address murder related offenses, and programs that help offenders to develop conducive coping mechanism to reduce risk for re-offence (Justice and Correctional Services, 2014). Lastly, there are pre-release programs that provide offenders with the necessary understanding of some of the things they may experience upon release and the necessary skills to deal with those changes (Justice and Correctional Services, 2014).

The cost of incarceration lacks both deterrent and reformative value (Adeyemi, 2007). The damaging effects of incarceration are physical, psychological, emotional, social and cultural (Adeyemi, 2007). Incarceration is penologically calamitous and costly to the economy (Adeyemi, 2007). Such effects propel policymakers to re-evaluate the justice systems use of correctional facilities (Badejogbin, 2015). Incarceration increases public expense, yet it does not efficiently improve public safety, as studies have demonstrated that there is no conclusive evidence which confirms that incarceration reformatory systems or harsh sentences have a deterrent value (Wright as cited in Badejogbin, 2015).

The South African Minister of Correctional Services pointed out that the cost of housing each inmate during the 2016/2017 financial years is estimated at R133 805,35. Considering South Africa's correctional center population, this would amount to R21.5 billion for the year (Africa Check, 2017). A significant amount of money is spent on the housing and rehabilitation of offenders. While socio-economic ramification of the penal system is not the focus of this research, it is imperative to note them as the government continues to lose money when such services are exhausted on the same people (Abdulkarim, 2012) because of recidivism.

Ndike (2014) stated that one of the factors associated with recidivism is that most reintegration services in South Africa do not provide an all-inclusive service, which begins within centres of correction and continues after release. This impact on mending family and community relationships, employability, offender's feelings of inadequacy (inferiority complex), challenges with acclimatizing to a new and ever-evolving environment (Chikadzi, 2017). Burns (2011) states that the financing and improvement of mental health service provision remains a huge barrier in the provision of rehabilitative services. Even though there are identifiable programs, without adequate funding to execute mental health services, the efficiency of rehabilitation programs remains questionable. Docrat, Lund and Chisholm (2019) argue that mental health services integration into general health service development in South Africa is neglected, which seems even more difficult within correctional facilities.

To date, South Africa's Justice system, particulalrly the Department of Correctional Services lacks a well-coordinated and reliable data collection and data dissemination system. A lot of the accessible data comes from *ad hoc* cross- sectional research studies and police arrests. This has been supplemented by sporadic national surveys (Parry, 1998). This makes it difficult to distinguish which data are most valid and which ones are no longer valid. Crime statistics released by the then minister of police Mr Nathi Nhleko, indicated that during the 1 April 2014 to 31 March 2015 period, 1.8 million crimes were reported, 356 919 were detected by police operations, and in those crimes 266 902 were drug-related; homicide increased by 4.6% amounting to 17 805 from 17 023 from the previous year, which was an average of 49 people a day or one murder every 30 minutes (Crime statistics, 2014-2015). The average rate for murder was 7.6 per 100 000 people across the world, while South Africa had an average of 36.5 per 100 000. During this period, 86 police officers were

killed and a total of 1 537 police officers were assaulted (Crime statistics, 2014-2015). The minister indicated that these statistics were disturbing and that the rise in the number of people who get killed was in conflict with the international trend, where the murder rate was seemingly decreasing (Crime statistics, 2014-2015).

The South African Police Service (SAPS) (2016/2017) report indicated that crime rates in South Africa by province were 28.5% in Gauteng, 21.6% in the Western Cape, 15.4% in KwaZulu-Natal, 9.5% in the Eastern Cape, 5.9% in Limpopo, 5.8% in Mpumalanga, 5.4% in the Free State, 5.5% in North West, and 2.3% in the Northern Cape.

The crime rate and inmate numbers have contributed to the issue of correctional centres congestion caused by recidivism and other crimes, which makes it difficult to distinguish between rehabilitation and mere incarceration (Freeman, 2003). The rate of incarceration has expanded significantly over the years, where correctional facilities are filled beyond capacity with startling overcrowding leading to unfavourable living conditions for inmates (Benatar, 2014). An article by Hopkins, (2018) reported that in Pollsmoor correctional facility in Cape Town, the latest statistics indicate a 194% overcrowding rate, where a cell built for 30 people has 68 inmates living in it. The Judicial Inspectorate for Correctional Services Annual Report (2012/2013) indicated that poor prison conditions enable the persistence of crime within correctional facilities as inmates tend to become more frustrated, which, doesn't help when there is an added gangsterism effect.

In 2012, Wood indicated that overall, correctional centres house 40 000 more inmates than they should. Benatar (2014) further express that South African detainment facilities have come to be seen as 'melting pots' for multidrug-resistant (MDR) Tuberculosis. The majority of inmates spend a lot of time inside the cells, with each

person in a space smaller than a single mattress.

The cells have restricted toilet and ablution facilities and are generally unhygienic (Benatar, 2014). This is despite Tata Nelson Mandela's Rule that "No prisoner shall be subjected to, and all prisoners shall be protected from, torture and other cruel, inhuman or degrading treatment or punishment, for which no circumstances whatsoever may be invoked as a justification" (The United Nations standard minimum rules for the treatment of prisoners, 2015, p2).

A report by Presence (2018) presents a statement by the Minister of Justice, Mr Micheal Masutha, stating that as of April 2018, South African correctional services had 163 140 inmates in 243 of its correctional facilities. This population comprised of 45 294 remand detainees and 117 820 sentenced offenders (Presence, 2018). Such statistics indicate that the 119 000 bed capacity the country currently has is exceeded. This means that correctional centres' overcrowding remains a harsh reality. Such environments are extremely unsatisfactory, and in reality improper, for the well-being and conducive rehabilitation of offenders whom the Department has undertaken to rehabilitate and reintegrate into the community. It makes one wonder, how is it rational for a person to possibly be brought up in maladaptive environments, be incarcerated for maladaptive behaviour, live in a maladaptive correctional centre environment, return to their maladaptive communities and be expected to behave in an adaptive manner upon their release with little to no post-incarceration support? Correctional facility overcrowding is also problematic in light of the fact that it has in some cases led to the mixing of low-risk offenders with high-risk offenders. This is an issue because the mixing of low-risk offenders with high-risk offenders generally prompts the exacerbation of criminality among the low-risk group (Andrews, Kiessling, Robinson, & Mickus, 1986 as cited in Onifade, Davidson, Campbell,

Turke, Malinowski & Turner, 2008).

Developing countries are generally challenged by numerous social ills that are intricately intertwined and South Africa is not exempted from these challenges (McAree, 2011). For example, poverty, lack of education, unemployment, inequality, racism, crime and violence, drug abuse etc. These ills have been asserted to have a pivotal influence on the rehabilitation of offenders (Gxubane, 2006) as some of these issues make it virtually impossible to know precisely which strategies ought to be utilized to resolve these problems (McAree, 2011). High poverty rates have been asserted to prompt maladaptive behaviour, which, in turn, lead to increased incarceration rates. The costs of incarceration and recidivism leave less money to help mitigate the numerous challenges in society that already triggered the onset of offending behaviour (McAree, 2011).

Understanding any human behaviour, especially the causes of crime is an extremely complex yet necessary task if we are to combat the issue. If social service practitioners are cognizant of mental illness, substance use and attraction to crime as risk factors, appropriate steps to help alleviate or eradicate recidivism may be taken through addressing these factors. Therefore, this study was designed to address the research gap that exists in determining the association between mental illness, substance use, as well as the interaction between the two risk factors in association with recidivism. Positive social implications of this study pertain to an increased understanding of critical risk factors associated with recidivism that can help reduce recidivism and possibly increase community safety.

1.2 Statement of the research problem

An estimated 90% of offenders in South African correctional facilities are repeat offenders (Karrim, 2018). Padayachee (2008), states that a lot of offenders return to prison in less than six months to a year. Africa Check (2016/2017) crime statistics report indicated that the murder rate increased to 19 016 from 18 673, where the Eastern Cape province had the highest murder rate. The rate of attempted murder was 18,205 from 18 127. Sexual offences went from 51 895 to 49,660 with most sexual offences being rape, followed by sexual assaults (Africa Check, 2016/2017). Rape went from 41 503 in 2016 to 39,828 rapes in 2017 (Africa Check, 2016/2017. The Eastern Cape province had the highest rape rate at 105.3 people per 100,000 people (Africa Check, 2016/2017).

Common assault was reported at 156 450, where 428.6 people per 100 000 people were victims of common assault daily (Africa Check, 2016/2017). Assaults with the intent to inflict grievous bodily harm were recorded at 170,616, indicating an average of 467.4 recorded cases of assaults with the intent to inflict grievous bodily harm (Africa Check, 2016/2017). The rate of assault declined from 301.1 per 100,000 people to 280.2 people (Africa Check, 2016/2017). Common robberies went from 54,110 to 53 418 (Africa Check, 2016/2017). Robberies with aggravating circumstances were recorded at 140,956, which was a 6.4% increase from 2015/16 report. Robbery with aggravating circumstances increased to 252.4 from 241.1 in 2015/16. An average of 386.2 cases of robbery with aggravating circumstances was recorded daily (Africa Check, 2016/2017).

The victims of crime survey (2016/17) indicated that the most feared crime was house burglary. Additionally, motorcycle or car theft in 2016/17 decreased from 53 809 to 53,307 stolen cars with an average of 146 each day. Drug-related offences

were 292,689, an average of 801.9 offences daily. House burglaries were 246,654, an average of 675.8 houses every day. Car hijacking increased by 14.5% from 2015/16, an average, 45.8 cars hijacked per day. Over half of the crimes occurred in Gauteng. The victims of crime survey (2016/17) further stated that 28.3% of house burglary victims had not reported the incidents to the police because they believed the police would not do anything about those cases. It is not surprising that though crime statistics show a decrease in some crimes, the victim of crimes survey indicates that a decrease in crime rates is associated with more feelings of fear among households in South Africa.

Recent statistics presented by a South African News articles report by Head (2018) presenting crime statistics by the province in South Africa indicated the country has an overall 6.9% murder rate increase. In the Northern Cape province, the murder rate decreased by 1.2% and attempted murder decreased by 12.7%, accompanies by a 27% carjacking rate and a 12% home burglary rate increase. In the Western Cape province, murder increased by 12.6%, while attempted murder increased by 9.2% accompanies by a 16% illegal possession rate and a 9% increase of drug crimes and an 8.9% increase in home burglaries. In the Eastern Cape, the murder rate increased by 5.2%, while attempted murder increased by 5.8% accompanied by a 4% carjacking increase.

In the North West, the murder rate increased by 5.4%, while attempted murder decreased by 3.8%, accompanied by an 11.5% common assault increase and 11.4% increase on arson cases. Free State presented with a 10.9% murder rate increase and an 11% attempted murder decrease accompanied by a 27.5% increase in drinking and drugged drivers. Gauteng had a 3.2% murder rate increase, while attempted murder decreased by 8.4% accompanied by an 18% increase on sexual assault and a 10.9% increase in drug-related crimes. Mpumalanga had a 3.4% murder rate decrease and a

0.6% attempted murder decrease, however, carjacking's increased by 10.6%.

Limpopo has the highest increase in the murder rate at 12.9% and a 6.6% increase in the attempted murder. In this province, sexual assault also increased by over 26.3%, carjacking increased by over 27.2% and home burglaries increased by over 26.2%. In KwaZulu-Natal, there is a 9.2% murder rate increase and 4.7% attempted murder rate increase accompanied by a 10.9% sexual assault increase (Head, 2018). The murder rate increase is alarming and requires significant attention as some of these cases include domestic violence cases and violence inflicted on women and children.

In 1998, the Judicial Inspectorate of Correctional Services was established with the statutory objective to facilitate the inspection of correctional centres' such that the inspecting judge may report on the treatment of inmates and correctional centres conditions. The Judicial Inspectorate for Correctional Services' (2017/18) annual report indicated that centres of correctional service in South Africa don't have adequate resources to address the mental health needs of offenders with mental illness. The report also states that offender's provisional accommodation in correctional facilities, pending their transfer, is cruel and inhumane.

The report adds that mentally ill offenders are kept with the general correctional centre population (sentenced offenders), due to correctional centres overcrowding and an inability to move inmates fast enough to the few suitable public mental health hospitals since they also have a shortage of beds and other mental health resources (Etheridge, 2018). All these factors impede the effective and timely rehabilitation of offenders.

Bantjes, Swartz, and Niewoudt, (2017) indicated that some of the inmates' mental health problems and suicidal behaviour have existed prior to incarceration, while other inmates became suicidal as a result of the stress and trauma often

associated with incarceration. Nearly 40% of deaths in South African correctional facilities are caused by suicide (Ncana, 2010) indicating that suicide is the primary cause of unnatural death among inmates (Rawoot, 2017). The prevalence of mental illness prior to incarceration and because of incarceration as it related to suicide behaviour is concerning in light of the fact that it has led to deaths. This suggests that there is a need to explore the "criminalization of mental illness" phenomenon among correctional facilities in South Africa.

Lamb and Weinberger (2001) posit that the criminalization of mental illness is caused by numerous factors such as, the lack of capacity in state hospitals to provide prolonged hospitalization, inflexible standards for public responsibility, inadequate support systems in the community, challenges to accessing mental health treatment within the community, and law enforcements belief that deviant behaviour can be dealt with quicker and more efficiently within the criminal justice system than the mental health system (Lamb & Weinberger, 2001). Once the revolving door into the criminal justice system is set in motion, it is difficult to stop (Lamb & Weinberger, 2001). Inadequacies within the mental health system as the primary provider of mental health treatment result in the criminal justice system being the primary provider, which serves the institutionalization of the criminalization of mental ill-health (Perez, Leifman & Estrada, 2003).

The criminalization of mental illness hypothesis has been tested by international researchers. Peterson, Skeetn, Hart, Vidal and Keith (2010), examined offence patterns as a function of mental illness to test the criminalization of mental illness hypothesis. The research included 220 parolees, where 111 had a serious mental illness, and 109 did not. In their study, the criminalization of mental illness hypothesis was that those with a mental illness would typically commit offences as a result of their mental illness, either because of active psychosis or survival

behaviours. A small but important minority of offenders with a mental illness (7%, N=8) proved the criminalization of mental illness hypothesis, in that their criminal behavior was a direct result of psychosis (5%, N=6) or comprised minor "survival" crimes related to poverty (2%, N=2). In light of the prevalence of mental illness among offenders and the level of survival-related crimes in South Africa, I think it would be worthwhile to explore the criminalization of mental illness hypothesis within the South African context.

Section 78(1)(A) of the Criminal Procedure Act 51 of 1977 states that all offenders are assumed to not suffer from mental illness or mental defect so as to be criminally responsible until the contrary is proven, based on a balance of probabilities. The ending of this section, i.e. "based on a balance of probabilities" is ambiguous. It also begs the question, is the balance of probabilities an objective or subjective matter? The Act further states that whenever the criminal responsibility of an alleged with reference to the act or an omission, which constitutes an offence, is an issue, the responsibility to prove mental unstableness in connection with the criminal act of the accused is on the party who raises the issue (Section 78 (1) (B) of the Criminal Procedure Act 51 of 1977).

One cannot help but wonder what happens if the "party who raises the issue" is the accused. By placing the responsibility to prove mental illness on the accused who may or may not be suffering from mental illness, are offender right to a fair trial not being infringed on should they fail to provide evidence of their mental illness? I raise this question because generally, offenders come from impoverished conditions with little to no resources to access mental health services prior to encountering the justice system. One would imagine that accessing these services would prove more difficult once they encounter the justice system.

Naidoo and Mkize (2012) argued that inmates in a correctional facility population in Durban, South Africa are not diagnosed or treated for mental disorders. This is not an issue particular to South Africa, as such, findings concur that of Schnittker, Massoglia, and Uggen (2012) who are sociologists at the University of Pennsylvania, these scholars stated that inmates with mental illness are not treated within correctional centres and because of this, their numbers are on the rise. Baillargeon, Bingwanger, Penn, Williams and Murray (2009a) posit that offenders with both mental illness and substance use disorders that aren't treated are more likely to re-offend.

Naidoo and Mkize (2012) recommended that more prominent mental health awareness and further research needs to be conducted throughout South Africa since their study was with a small sample and sought to explore the prevalence of mental health and not examine it as an indicator for recidivism. The lack of mental illness screening, diagnosis and treatment warrants this study as it aims to go beyond establishing the prevalence of mental disorders among offenders but to determine the predictive relationship mental health may have with recidivism.

The lack of holistic approaches in investigating contributors to recidivism among offenders in South Africa creates and maintains fear (Naidoo & Mkize, 2012). Communities at large are trapped in a downward spiral where crime increases fear, which increased isolation and lack of trust among community members, which in turn leads to more crime (Crime->fear->withdrawal->isolation->weakened community bonds-> more crime) (Gxubane, 2012). It is key that community service practitioners, especially those working in the public sector identify key risk factors for offending behaviour and provide suitable interventions in an effort to curb recidivism.

The South African government appears to have neglected its commitments and responsibilities as a signatory to the Convention on the Rights of Persons with Disabilities (CRPD) (Burns, 2011). This is evidenced by the gap or rather inadequate mental health resource provision in South Af•rica (Burns, 2011). In reality, this is a human rights problem. The government has committed to deliver services for the health needs of its people, however, it appears that servic•es for those with mental illness and disability are tragically deficient and, for many people, inaccessible (Burns, 2011).

South Africa is by no means, the only country characterized by the mental health gap-in fact, several countries are still not able to meet the mental health needs of its citizens (Kohn, Saxena, Levav & Saraceno, 2004) making this a global issue. Nevertheless, South Africa is a country that has publically avowed its obligation to addressing the rights of the mentally ill and disabled – both in enacting one of the most progressive piec•es of mental health legislation in the world (McCrea, 2010) and through signing and ratifying the CRPD (Burns, 2011).

Through policy and legislation, the South African govern•ment affirmed its belief that all members of society have a funda•mental constitutional right to mental health (Burns, 2011). This means that individuals with mental illnesses do not get access to mental health resources they experience a fundamental violation of their basic right to mental health (Burns, 2011). Such research findings further augment the relevance of this study as it attempts to add to the limited number of context-based research that explores the prevalence of mental illness and the impact of mental ill-health on recidivism. It further highlights how there is room within the criminal justice system for the re-evaluation of how it responds to mental illness, as current policies may somewhat directly or indirectly allow for the criminalization of mental

illness and those affected by it.

Mental health practitioners imagined a post-apartheid South Africa with conditions that would be conducive for human health and psychosocial well-being, with equality, and justice (Swartz & Levett, 1989). However, many factors still foster mental illness in South Africa such as poverty and living conditions that are far from optimal for human health and human development (Mayosi & Benatar, 2014). South Africa continues to be challenged by structural, economic and socio-political factors, which make it difficult to deliver mental health care (Coovadia, Jewkes, Barron, Sanders & McIntyre, 2009).

The Department of Correctional Services has been faced with numerous structural and financial challenges that have led it to disregard its statutory obligations to protect the rights of inmates and create safe and humane correctional centres (Muntingh, 2016). Congestion in correctional facilities influences the perpetration of gangs and violence within the centre (Agboola, 2016). Congestion and resource constraints are major concerns associated with elevated levels of psychological stress, mental illness, interpersonal violence, physical assault and sexual abuse within correctional centres (Prinsloo, 2013).

Bantjes, Swartz, and Niewoudt, (2017) investigated the experiences of health professionals working in South African prisons and their perceptions of challenges to suicide prevention in correctional facilities. Their research drew attention to complex human rights challenges mental health professionals face when attempting to provide psychological care in settings where resources are scarce and the environment is anti-therapeutic (Bantjes, Swartz & Niewoudt, 2017).

Findings from Bantjes, Swartz, and Niewoudt (2017) indicate that for some inmates, the aetiology of mental health problems and suicidal behaviour dates far back, prior to incarceration, and others become suicidal as a result of the stress and

trauma of incarceration. Findings indicate that health facilities within prisons focus much on treating physical and medical conditions, rather than provide integrated psychosocial or psychiatric care. Additional challenges faced by Mental health practitioners include the inability to transfer inmates to state psychiatric care because of bed shortages in psychiatric hospitals (Bantjes, Swartz, & Niewoudt, 2017).

Additionally, findings indicate that there is a lack of multi-disciplinary teams and not enough mental health care staff in correctional facilities. This shortage leaves the few prison mental health practitioners within correctional facilities feeling overwhelmed, unsupported, compromised and incapable of executing strategies believed to be necessary for optimal mental health. These findings support that there is a significant mental health treatment gap, with very few inmates receiving the psychological and psychiatric care they need (Naidoo & Mkize, 2012). Weiskopf , 2005 as cited in Bantjes, Swartz & Niewoudt (2017) argues that deficiencies within correctional facilities indicate a tension between a punitive culture of custody and a culture of care and rehabilitation.

1.3 Aims and objectives of the study

This study aims to quantitatively examine the relationship between mental health and recidivism among incarcerated youth offenders in South Africa and the role of substance use. This study also investigates other risk factors that may influence recidivism such as appetitive aggression, attitudes, subjective norms, perceived behavioural control, demographic factors such age, education, marital status, gender and history of incarceration.

1.4 The specific objectives of the study include to:

1. Examine the nature and extent of recidivism among youth offenders.
2. Assess the prevalence and correlates of mental health disorders and recidivism among youth offenders.
3. Examine the relationship between mental health disorders, appetitive aggression, and recidivism among youth offenders.
4. Examine the role of substance use on the relationship between mental health and recidivism.
5. To determine the applicability of the theory of planned behaviour to recidivist behaviour among youth offenders in a correctional facility.

1.5 Research Questions

The following research questions guided this study:

1. What is the nature and extent of recidivism among youth offenders?
2. To what degree do the prevalence and correlates of mental health disorders influence recidivism among youth offenders?
3. To what degree does the relationship between mental health disorders and appetitive aggression, influence recidivism among youth offenders?
4. To what degree does substance use mediate the relationship between mental health and recidivism among youth offenders?
5. To what degree is the theory of planned behaviour applicable in predicting recidivist behaviour among youth offenders?

1.6 Rationale and significance of the study

Several reasons necessitate this study. First, in efforts to contribute to the limited research done thus far in South Africa on the prevalence of mental illness among youth offenders. Second, to contribute to the limited body of research done on the factors that influence recidivism among youth offenders in SA, as this study aims to investigate the relationship between mental health and recidivism among youth offenders and the role of substance use. This study is also important for highlighting that due to events associated with mental illness and substance abuse disorder vulnerability, successful community integration can become particularly difficult among ex-offenders (Buckmon, 2015) leading to repeat offending.

Currently, limited research in this area restricts the extent to which there could be a broad understanding of the relationship between these components. Furthermore, South Africa ranges among the top, as far as high detainment rates in the world (Ngabonziza & Singh, 2012). Therefore, if recidivism is indeed associated with factors postulated by this study, the criminal justice system and the department of correctional services will benefit from this study's finding in influencing strategies that closely monitor and reduce criminal activity thus reducing criminal activity and improving mental health among youth offenders.

The Ecological systems theory and the Theory of Planned Behaviour (TPB) provided the theoretical underpinning or line inquiry of this study. Consistent with the theory of planned behaviour, the study investigated the extent to which youth offenders' attitudes, subjective norms and perceived behavioural predict the intention to recidivate. Likewise, consistent with the Ecological systems theory, a combination of internal and external factors that may place youth at risk of re-arrest was explored. In terms of mental health screening, a particular focus is on depression and anxiety.

These mental health issues were selected because they are part of the common mental health disorders and have often been associated with societies that have a history of crime and violence, which South Africa is a part of. They are also selected because current studies in South Africa have not yet fully studied the particular matrix of these disorders in association with recidivism. It is imperative to identify and respond to youth offenders' mental health issues as it predisposes them to re-arrests than offenders without mental ill-health (Buckmon, 2015).

Dissel (2008) states that due to the type of restoration in remedial facilities in South Africa, recidivism will stay on the ascent. Gxubane (2006) concurs by stating that recidivism rates in South Africa put one in doubt over the efficiency of the therapeutic and statutory interventions available to incarcerated offenders. Lekalakala (2016) further argues that the absence of sufficient projects in South Africa prompts recidivism and thus brings about congestion of correctional centres since a significant number of inmates are repeat offenders. The key question lies in the adequacy of the recovery programs, as some specialists have argued that evidence demonstrating that harsher sentences would decrease recidivism don't exist (Chen & Shapiro, 2007).

This study also highlights that the financing and improvement of mental health service provision remains a barrier (Burns, 2011). There is no particular expenditure plan for mental health at national as well as provincial level. General health budgets usually end up having to finance mental health services where it inescapably ends up at the bottom of a list of pressing needs when money is allocated (Burns, 2011).

Lund, Kleintjes, Campbell-Hall, Mjadu, Petersen, Bhana, Kakuma, Mlanjeni, Bird, Drew, Faydi, Funk, Green, Omar, and Flisher (2008) conducted a survey across all nine provinces in South Africa and found that only 3 provinces (i.e. Northern Cape Province, Northwest Province and Mpumulanga Province) were able to provide

evidence of mental health expenditure. The Northern Cape reported 1% mental health expenditure, Northwest reported a 5% mental health expenditure, and Mpumalanga reported an 8% mental health expenditure. Such statistics reflect the disproportionately inadequate allocation of funds towards mental health service provision (Prince, Patel, Saxena, Maj, Maselko, Phillips, & Rahman, 2007). Thus, suggesting that the government does not value mental health (Prince, Patel, Saxena, Maj, Maselko, Phillips, & Rahman, 2007). This has dire consequences for society, as people who suffer from mental illness are prone to maladaptive behaviour (Prins, Skeem, Mauro, & Link, 2015).

Policymakers are persistently looking for ideal systems for accomplishing public safety at the lowest cost to taxpayers (Schoeman, 2002). Nevertheless, the ongoing ineffective treatment of offender's results in additional costs as re-arrest persists (Schoeman, 2002). For some people in society, the cost of treating mentally ill criminals is difficult to come to terms with (Schoeman, 2002). The response to this difficulty arises more so if the aetiology of mental disorder is influenced by circumstances and experiences, rather than genetic (Schoeman, 2002). One can infer that individuals, who become mentally ill regardless of whether by circumstances or genetics, are not fully accountable for their dysfunction. Schnittker, Massoglia, & Uggen (2012) support this outlook by arguing that childhood adversities are linked to adult psychiatric disorder and that such hardships are linked to consequent criminal behaviour.

Considering South Africa's historical context and the inheritances thereof, responding to mental illness with treatment, is not just the right thing to do to reduce recidivism and protect the public, but it is the right thing to do for those offenders whose criminality is not fully of their own making. Schoeman (2002) states as a society we must recognise that unfortunate conditions produce unfortunate outcomes.

Therefore, developing suitable mental health intervention strategies is not simply to benefit offenders, but to protect the public from further crimes that could have been prevented as studies have shown that untreated mental illness increases the likelihood to re-offend (Bureau of Justice Statistics, 2006b). Pickard and Fazel (2013) state that the treatment of mental illness among offenders may enhance the probability of successful reintegration into society and better life opportunities. Thus reducing the risk of re-offending and offering real-time monitoring and intervention when risk is increased (Pickard & Fazel, 2013).

This study is also significant because such research studies are likely to increase the efficiency of treatment options, sentencing offenders, assist with the development and application of appropriate treatment interventions and help establish suitable parole conditions (Tadi & Louw, 2013). Considering the current level of fear in society, and the amount of violence perpetrated against women and children, I think it is time that South Africa also gives much attention to mental illness and consider the effect it can have on offending behaviour. There is a serious outcry in society as we remember Karabo Mokoena who was killed and burnt by her boyfriend, Versha Kandasamy who was bludgeoned to death, Anene Booysen who was raped and murdered, Anni Hindocha who was murdered, Zara Hector who was beaten to death, Lekita Moore, who was mutilated to death, Desiree Murugan who was stabbed to death, Zanele Khumalo who was killed by her boyfriend whilst pregnant, Noxolo Xakeka who was stabbed to death because she was lesbian, Hope Zinde killed by her son, Jodene Pieters who was raped and murdered, and most recently Viwe Vellem raped and killed and Uyinene Mrwetyana who was also raped and killed by a seemingly functional economically active citizen. There are numerous cases like this and it just seems to be a never-ending issue.

Therefore, the study of mental illness as a predictor for criminal behaviour is essential. The role of substance use should be considered given the fact that drug use is ubiquitous among the youth in South Africa. Findings from this study are useful for the development of evidence-based programs and the enforcement of policies that have a deterrent effect.

1.7 Implications for social work practice

This research relates to social work because essentially social work involves working with human beings (Dunk, 2007). Social workers are taught how to work with clients from micro, mezzo, and macro-level (Senser, 2017). The study benefits social work practitioners in terms of broadening the horizon of the profession by acquiring and applying knowledge from different fields such as psychology, psychiatry and criminology. Moreover, knowledge accumulated from this study will be congruent with the ethical and political dimensions of the profession in terms of developing frameworks for social work education in this area. Social workers traditionally focus on systems that shape communities and influence community members lived experiences and this is a study aimed at such an effort (Dunk, 2007).

Researchers within the social sciences and practitioners within the department of correctional services and department of social development will be able to identify risk factors that this study concludes to increase repeat offending (Russell, 2017). This way, they will be able to implement interventions that prevent and treat the cause, not the symptom in efforts to reduce recidivism (Buckmon, 2015).

This study allows for a better understanding of the patterns of recidivism among mentally ill offenders, which may ultimately assist social practitioners with more accurate risk assessment as well as more individualised risk management interventions prior to incarceration, whilst incarcerated, and post-incarceration (Lamberti, 2007). It also helps highlight gaps that exist in funding allocation leading to gaps in practice that the Department of Social Development, the Department of Health and the Department of Correctional Services have to be mindful of in terms of securing and allocating future funding for the youth. Improved mental health service provision would not only youth suffering from mental illness, but also help the public community.

This study also contributes to social work research, through opening opportunities for study replication. This study also seeks to highlight gaps in policies and practice that may be unintentionally fostering the marginalization of the majority and the privilege of the minority group.

There was a heated discourse in news report and social media outlets regarding the shackling of awaiting trial detainees. The question has been: if fees must fall, activist, Mcebo Dlamini and corruption accused Duduzane Zuma were both shackled for their separate court appearances, why was the white 7-year-old child rapist accused Nicholas Nino not shackled? Why was Nino's crime attributed to issues of mental health? There was a perception around such acts as decriminalizing whiteness enabled by white supremacy, which constructs 'whiteness' as normative and white deviance as an individual aberration or mental illness. While on the other hand, blackness seems to be constructed as synonymous with criminality (Heitzeg, 2015). The consequence is double standards of definition and control, which medicalize white deviance and criminalize black deviance (Heitzeg, 2015).

Therefore, as health, social justice and social development practitioners there is a need to recognise that post-apartheid South Africa is a context where there continue to be endemic social problems that foster conditions for violence and mental illness. That the process of mental health policy implementation has been impeded by the low priority given to mental health (Draper, Lund, Kleintjes, Funk, Omar, Flisher, & MHaPP Research Programme Consortium, 2009). There is a need to recognise that justice does not end with a change of regime and a rewriting of policy and legislation. A lot more needs to be done to improve mental health service provision on a broader scale in the post-apartheid context.

Lastly, this research seeks to highlights the need for social work practices that embrace the Afrocentric perspective through using and developing theories, knowledge and implementing practices that are informed by our context, by our people, for our people, which will possibly lead to positive social change through increased mental health, recidivism reduction and increased community safety. This study also highlights the needs for emancipatory practices, which allows for the mobilization of people to take action in transforming their lives.

1.8 Definition of key terms

Attitude. Is an orientation that locates objects of thought on dimensions of judgments" (Weiten, 2010:687). Additionally, Jung's defines attitude as the "readiness of the psyche to act or react in a certain way" (1921: 687 as cited in Weiten, 2010). Furthermore, Jung posits that attitudes are often in pairs, where one is conscious and

another is unconscious. Finally, Baron and Byrne (1987) describe attitude as a long-term, overall assessment of individuals, objects, or issues.

Anxiety. Refers to excessive feelings of worry, nervousness, or uneasiness about something with an uncertain outcome (American Psychiatric Association, 2013).

Appetitive aggression. Refers to offenders' perpetuation of violence and harm infliction for purposes of enjoying violence-related pleasure (Weierstall, Hinsberger, Kaminer, Holtzhausen, Madikane & Elbert, 2013).

Correctional centre. Refers to any place established under the Correctional Services Act No 111 of 1998 as a place for the reception, detention, confinement, training or treatment of persons liable to detention in custody or to placement under protective custody, and all land, outbuildings and premises adjacent to any such place and used in connection therewith and all land, branches, outstations, camps, buildings, premises or places to which any such persons have been sent for the purpose of incarceration, detention, protection, labour, treatment or otherwise, and all quarters of correctional officials used in connection with any such correctional centre, and for the purpose of sections 115 and 117 includes every place used as a police cell or lock-up (Correctional Services Amendment Act No. 25 of 2008).

Correctional medical practitioner. Refers to a medical practitioner registered in terms of the Health Professions Act, 1974 (Act No. 56 of 1974), and appointed in terms of section 3 (4) (Correctional Services Amendment Act No. 25 of 2008).

Crime. Refers to an act or omission, which is punishable by law (Department of Correctional Services, 2005).

Criminal behaviour. An act or failure to act in a way that violates public law (Bartol & Bartol, 2012).

Depression. Refers to persistent depressed moods or loss of interest in activities, causing significant psychological and daily functioning impairment (APA, 2013).

Delinquency. Refers to any act prohibited by the law, such as theft, burglary, violence, robbery, vandalism, and drug use (Bartol & Bartol, 2012).

Detained. Refers to lawfully holding a person by removing their freedom of liberty at that time, which can be due to (pending) criminal charges raised against the individual as part of a prosecution or to protect a person or property (Bartol & Bartol, 2012).

Imprisonment. Refers to the limitation of a person's freedom by the authority of the government or by a person acting without such authority for any reason (Department of Correctional Services, 2005).

Inmate. Refers to any person, whether convicted or not who is detained in custody in any correctional centre or remand detention centre or who is being transferred in another correctional centre or remand detention facility (Correctional Services Amendment Act No. 25 of 2008).

Incarceration. Refers to the state of being confined in a correctional facility (Luyt & Du Prees, 2010).

In-prison rehabilitation. Refers to the restoration of offenders within centres of correctional facilities into productive community members (Department of Correctional Services, 2005).

Mental health screening. Is a psychological evaluation (APA, 2013).

Mental illness. Is a syndrome characterized by a significant clinical disturbance in an individual's cognition, emotion regulation, or behaviour that reflects

a dysfunction in the psychological, biological, or developmental processes underlying mental functioning (Buckmon, 2015).

Mentally ill offender. Is defined in section 1 of the Correctional Services Act No 111 of 1998, as a person whose provision of care, treatment and rehabilitation at a health establishment designated in terms of section 49 of the Act has been ordered or issued in terms of section 52(3)(a) (Correctional Services Act No 111 of 1998).

Perceived behavioural control. Refers to a person's perception of their ability to perform a given behaviour (Ajzen, 1985). It consists of two facets: these are efficacy expectancies and outcome expectancies. The first one refers to an individual's control over behaviour and the level of confidence an individual has to perform or not perform the behaviour (Ajzen, 1991). On the other hand, outcome expectancies refer to a person's perception that the performance of behaviour will result in a favourable outcome. Therefore, people will execute certain behaviours is they believe that the performance will result in the desired outcome (Ajzen, 1991).

Recidivism. Within the criminal justice context, can be defined as the "reversion of an individual to criminal behaviour after he or she has been convicted of a prior offence, sentenced, and (presumably) corrected" (Maltz, 1984, 2001:1). Prinsloo (1996) defines recidivism as an individual's tendency to engage in repeated criminal conduct.

Rehabilitation. Hoffman (2008), a counselling psychologist that works primarily with inmates, asserts that rehabilitation is a process of learning to be oneself and to be recognized as a unique person, meaningful to others because of both difference and common ground.

Restorative justice. A system of criminal justice that focuses on the rehabilitation of offenders through reconciliation with victims and the community at large (DCS, 2005).

Risk factor. Within the criminology context, risk factors refer to traits, problems and characteristics that are directly related to an individual's likelihood for offence and re-offence (Norwood (undated).

*Subjective norm***.** Refers to social pressure to engaging or not engaging in a certain behaviour (Ajzen, 1991). It is defined as an individual's perception of how people significant to them perceive and influence their performed behaviour. In establishing subjective norms, individuals take normative expectations of significant others in their environment into account. In other words, individuals consider if significant, would approve or not approve for them to perform a certain behaviour, and then use this information to work out their behaviour (Ajzen & Fishbein, 1980).

Substance use. Alludes to the utilization of any psychoactive substances, for instance, cigarettes, illegal drugs, prescribed drugs, inhalants and solvents. Substance use has stages, including drug-free (non-use), experimental, recreational and harmful use which is further divided into misuse and dependence (Keane, Reapers-Reynolds, Williams & Wolfe, 2000-2006).

Substance abuse. Otherwise known as drug abuse, refers to a pattern of drug use where the consumption and method of drug use are harmful to an individual or others, which is referred to as a substance use disorder (Gxubane, 2006).

Youth. South Africa's National Youth Commission Act, 1996, defines youth as those from ages 14 to 35 years. Of interest to this study, youth is defined as persons between the ages of 18-35 years.

Youth offender. Is a young person who has been convicted or cautioned for a criminal offence (Weierstall, Hinsberger, Kaminer, Holtzhausen, Madikane & Elbert, 2013).

1.9 Summary

Mental illness is a growing problem in society. There is urgent need to attend and respond to mental health issues with appropriate interventions, more so among youth offenders in order to provide interventions that will help alleviate chances of re-offence and aid community integration once released to the community. Therefore, this study seeks to contribute to filling the gaps in research by providing significant determining factors that help inform interventions that seek to reduce recidivism. The next chapter reviews literature pertaining to mental illness, substance use, appetitive aggression, attitudes, associates and perceived behavioural control as risk factors associated with recidivism.

CHAPTER 2

LITERATURE REVIEW

While South Africa has been progressive in deinstitutionalising mental health provision, there remain insufficient mental health resources to support community-based services (Skeem, Winter, Kennealy, Louden, & Tatar, 2014). Generally, mental disorders remain undetected and untreated, and much more inside correctional facilities, which indicates a substantial gap in mental health service delivery and has implication for re-offending behaviour (Skeem, Winter, Kennealy, Louden, & Tatar, 2014). Individuals working within the criminal justice system believe that those individuals who are suffering from a mental illness encounter the criminal justice system because the mental health system has failed them (Skeem, Winter, Kennealy, Louden, & Tatar, 2014).

This chapter reviews literature pertaining to recidivism. It reviews the implication of mental illness on recidivism as implicated by previous research, which has laid the foundation for the need for further studies. I begin this literature with the social welfare history of the research problem. Following this is a discussion of policy and legislation pertinent to the study, where I highlight some gaps that exist within South Africa's judicial system. Following this is a discussion of literature pertinent to the research study's objectives. The discussion of these elements underscores the urgency of identifying whether or not mental illness is a key risk factor of re-offending behaviour and if substance use disorder increases or decreases the likelihood of re-offending among those with mental illness in efforts to curb recidivism.

2.1 Social welfare history of incarceration and rehabilitation

The history of the African corrections makes it clear that detainment did not take root in Africa but rather originated from Europe as a method by which to oppress and punish individuals who opposed colonial authority (Sarkin, 2008). The employment of corporal punishment and the death penalty to stifle political oppression was the focal point of Africa's first detainment facilities (Sarkin, 2008). In light of this starting point, it is not unexpected that crime and violence are so high in South Africa and that present-day African detainment facilities neglect to meet their expressed objectives of rehabilitation and without a doubt continue to fulfil the aims of the abuses set in motion years ago (Sarkin, 2008).

Herbig and Hesselink (2012) state that South Africa is amongst countries that have the most elevated recidivism rates on the planet. Though commonly acknowledged that crime is a complex and multi-faceted social phenomenon, it is indisputably linked to South Africa’s historical and current socio-political situation, poverty, unemployment, as well as the ineffective rehabilitation and treatment of offenders (Herbig & Hesselink, 2012). Therefore, recidivism remains the subject of examination, such that broader information to understand recidivism becomes available (McGuire, Bilby, Hatcher, Hollin, Hounsome & Palmer, 2008).

Recidivism is a broad term that alludes to the relapse to criminal behaviour, which incorporates a range of results, including re-arrest and re-imprisonment (Prinsloo, 1996). Inmates represent a high-risk group with enormous related expenses and an extensive contribution to general public delinquency and violence (Andersen & Skardhamar, 2014). Various investigations have attempted to identify factors that influence recidivism inside and between countries, (Fazel & Yu, 2011; Bonta, Law & Hanson 1998; Hanson & Morton-Bourgon, 2005). However, various issues, for

instance, sample selection, meanings or conceptualization of recidivism, and irregularities in follow-up lengths, hamper such examinations. Additionally, dissimilarities in recording and reporting procedures make it challenging to get a broad or universal comprehension of recidivism.

Since the Department of Correctional Services came to effect, various approaches have been implemented to improve, change or rehabilitate offenders (Singh, 2008). Unfortunately, researchers have thus far not been able to assert that they have established an approach or model for the treatment of offenders that unquestionably works (Singh, 2008). Consequently, it has been recommended that studies ought to find comprehensive information on the causes of crime and should essentially consider the dynamic interaction of numerous domains that operate at various stages. This includes interactions that occur at micro (e.g. variables biological, cognitive and emotional), mezzo (e.g., family, peer, school and neighborhood variables) and macro-level (e.g., poverty, racism, the representation of crime in mass media and society's tolerance of alcohol and substance abuse) (Reppucci, Fried & Schmidt, 2002).

Nothing best explains the aetiology of crime, violence and trauma in South Africa than the apartheid era. South Africa represents a particular ideological space in which race and gender continue to centre as the predominate metric of social hierarchy, rather than religion or wealth. The current justice system in our country has played a role in the maintenance systems that essentially criminalize and oppress certain people. It is marked by discriminatory sentencing, maintained by criminal justice policies that don’t fully consider the unjust inheritances of this country that are still present and reflect the political agenda of the apartheid era.

Similar to western countries with high incarceration rates (i.e., United States), South Africa's Criminal Justice System has, by and large, focused its effort at the front end of the system, by locking up individuals (Sarkin, 2008). It has not, however, applied an equivalent exertion at the tail end of the system, by considering the mental health impact of the conditions people live under before detainment, things that happen to them whilst incarcerated, and the period subsequent to release from correctional facilities, both immediate and in the long-run (Sarkin, 2008).

2.2 Policy and legislation

Even with inconceivable difficulties such as the shortage of resources, several African countries continue to thrive for the development of corrections reform by promoting inmates' rights and diminishing prison population. South Africa has one of the most progressive policies aimed at ameliorating recidivism. However, good intentions are written on paper solely do not suffice. The mandate of the Department of Correctional Services is derived from the Correctional Services Act, 1998 (Act 111 of 1998), the Criminal Procedure Act (CPA), 1977 (Act 51 of 1977), the 2005 White Paper on Corrections; and the 2014 White Paper on Remand Detention Management in South Africa.

The legislation requires the department to contribute to keeping up with and advancing a just, peaceful and safe society by rectifying offending behaviour in a safe, secure and humane environment, encouraging optimum rehabilitation thus alleviate recidivism. Due to discriminatory education, during apartheid blacks were generally less educated than whites and usually had less knowledge about the law and their rights (Murray, 1995). Most were unable to afford the high cost of litigation or quality legal representation in criminal and civil cases. Furthermore, the negative attitudes of court personnel towards black people contributed towards the perception

that the justice system was not concerned with the interests of the black population (Dissel & Kollapen, 2002).

The White Paper on Corrections (2005) in South Africa derived from the South African Constitution (1996), represented the final fundamental breakdown of an outdated penal system and ushered in a start to the second decade of freedom where prisons became correctional centres of rehabilitation. Where offenders are equipped with skills to embrace a lifestyle that will bring about a second chance towards transforming into an ideal citizen of South Africa.

The Second Chance Act of 2007 refutes the notion that recidivism reduction is best accomplished through deterrent threats only. The Act calls for the delivery of services to former offenders in a systematic, progressive fashion rather than in a minimal or grudging way. The Act places a demand for the development of programs and services that are aimed at aiding rehabilitation efforts and encourage positive participation in society upon release. The Act challenges policies that made it extremely difficult for ex-offenders to reintegrate into communities as non-criminal community members. Albeit such an Act, there are still so many offenders who are not rehabilitated, struggle to reintegrate to society, thus recidivate.

The Department of Correctional Services (DCS) marked the end of a life of crime and the beginning of restoration. The key objectives of the Department of Correctional Services (DCS) are to guarantee that: the effectiveness of the justice system is enhanced through the effective management of remand processes, society protection through incarcerated offenders being secured and rehabilitated, society protection by offenders being reintegrated into the community as law-abiding citizens (Strategic plan, 2013-2014/2016-2017). Moreover, the South African Republic Constitution (1996) compels the DCS, to comply with the subsequent rights as far as

the treatment of offenders is concerned. The DCS has to uphold equality, human dignity, freedom and security of the person, right to health care services, right to education, freedom of religion, and rights to humane treatment and to communicate and be visited by family and next of kin. In doing so, the department shows its commitment to promoting corrections as a societal responsibility, contributing to enhanced public safety and reduced re-offending.

The Correctional Services Act, 1998 (Act 111 of 1998) emphasizes that individualized assessments of offenders are vital in determining their specific needs in terms of specialized treatment programs. According to the study by Steyn and Hall (2015), this is not always practised and a one-size-fits-all model is used. Therefore, despite the White Paper on Corrections emphasizing that more individualized interventions should be implemented, the DCS faces a challenge in this regard due to the overwhelming amount of inmates and the lack of professional staff (Department of Correctional Services, 2005).

According to Section 77(1) of the Criminal Procedure Act 51 of 1977, if it appears to the court at any stage during the criminal proceedings that the accused is by reason of mental illness or mental defect not capable of understanding the proceedings so as to make a proper defence, the court shall direct that the matter be inquired into and be reported on in accordance with the provisions of section 77 and 78. Section 78 (1A) of the Criminal Procedure Act 51 of 1977, in line with mental illness or mental defect and criminal responsibility, states that, every person is assumed to not suffer from a mental illness or mental defect so as not to be criminally responsible, until the contrary is proved on a balance of probabilities. According to section (1B) of the Criminal Procedure Act 51 of 1977, whenever the criminal responsibility of an accused with reference to the commission of an act or an

omission, which constitutes an offence, is issued, the burden to prove mental illness with reference to the criminal responsibility of the accused shall be on the party who raises the issue. The challenge with this section of the act as argued by Mare (2011) is that if it is the accused who raise the issue of mental illness, placing the *onus* on the accused who alleges criminal incapacity to prove mental illness, a guilty finding can still be made if the *accused* fails to prove the presence of a mental illness or defect on a balance of probabilities. Without all the necessary evidence, it would be more probable, on the evidence presented, that the accused does not have a mental illness or defect even if they may have one (Mare, 2011).

Section 78 (7) of the Criminal procedure Act 51 of 1977 states that if the court finds that the accused at the time of the commission of the act in question was criminally responsible for the act but that his capacity to appreciate the wrongfulness of the act or to act in accordance with an appreciation of the wrongfulness of the act was diminished by reason of mental illness or mental defect, the court may take the fact of such diminished responsibility into account when sentencing the accused.

Therefore, section (1B) of the Criminal Procedure Act 51 of 1977 may infringe on the rights of offenders to a fair trial if the accused is not able to provide proof of their mental illness. A lot of people struggle to access mental health services in South Africa out of a correctional facility, this is more so difficult for individuals who have encountered the criminal justice system. This calls for the re-evaluation and possible modification of this section of the Act. It needs to be re-assessed especially because the department of correctional services has committed to keeping up with and upholding people's rights including that of a fair trial as regulated by South African law.

According to the Department of Correctional Services Act 111 of 1998, as soon as possible after the admission of sentenced offenders, such offenders must among other things, be assessed to determine their security classification for purposes of safe custody; health needs; educational needs; and social and psychological needs. The Act further states that the Department must provide or give access to a full range of programs and activities, including needs-based programs, and educational and training needs of sentenced offenders. The Department must provide social and psychological services in order to develop and support sentenced offenders by promoting their social functioning and mental health. This brings the question, how is the department of correctional services executing this when scholars continue to argue that inmates are not screened/diagnosed or treated for mental disorders in correctional services in South Africa (Naidoo, & Mkize, 2012).

In the DCS White Paper on Correctional Facilities, the section on female detainees is not even a page long; it is encumbered with rather dubious promises (Hopkins, 2017). The Correctional Services Act stipulates the commitment to make gender-sensitive environments in centres of correctional service. However, there are not many solid guidelines on the best way to create these gender-orientated environments (Hopkins, 2017).

The UN's General Assembly (2010) brought forth the Bangkok Rules; the first set of rules in this guideline focuses on female detainees exclusively. While South Africa has embraced these rules and made them a part of correctional centres policies, this does not necessarily translate into the execution of those guidelines as reflected on the ground. Hopkins (2017) an investigative journalist for the Wits Justice Project, along with her team, interviewed women in Pollsmoor prison in Cape Town and Johannesburg prison. Findings from this project indicated that women are allowed to

give birth in prison and live with their children until the age of two. Some of the narratives from the interviews indicated that often women have to give their babies to their families because the prison is not a humane environment. Even when the mothers feel it was a good decision to give their babies to their families, the separation is often followed by depression (Hopkins, 2017).

Since the end of apartheid, followed by the election of the first democratic government in 1994, some imperative reforms have taken place in mental health policy and legislation (White paper for the transformation of the health system in South Africa, 1997). In post-apartheid South Africa, it is clear that mental health has been neglected and that the transition to democracy requires paying much more attention to it (Stein, 2014). South Africa set about reforming its outdated apartheid-era mental health legislation, and in 2004 the Mental Health Care Act (No 17 of 2002) was promulgated (National Mental Health Policy Framework and strategic plan, 2013-2020).

The mental health policy is based on, and consistent with many existing policy and legislation mandates in SA (National Mental Health Policy Framework and strategic plan, 2013-2020). Among these is: The Constitution of the Republic of South Africa, 1996; the White Paper on the Transformation of the Health System in South Africa, 1997; the National Health Policy Guidelines for Improved Mental Health in South Africa, 1997; National Health Act, Act 63 of 2003; Correctional Services Act, Act 111 of 1998; Medicine and Related Substances Control Act,101 of 1965 as amended; Health Professions Act, 56 of 1974 as amended; Prevention of and treatment for Substance Abuse Act, No. 70 of 2008; National Drug Master Plan 2013-2017; Sexual Offences Act, Act 37 of 2007; and Criminal Procedure Amendment Act,

Act 65 of 2008 (National mental health policy framework and strategic plan, 2013-2020).

Among other things, the Mental Health Care Act (No 17 of 2002) preserves the human rights of people with mental disorders, providing particular mechanisms for the protection and promotion of those rights. The Act also enshrines on improving access, make primary health care the first contact of mental health care within the health system, and uphold the amalgamation of mental health care into general health services and the development of community-based services.

As far as mentally ill incacerated offenders are concerned, amongst other things, the Mental health care Act (no 17 of 2002) set to designate health establishments; enquire on the mental health status of inmates; provide care; treatment and rehabilitation to inmates with mental illnesses; transfer mentally ill inmates to designated health establishments; conduct periodic reviews on the mental health status of mentally ill inmates; and establish a procedure on the expiry imprisonment term for mentally ill inmates.

After a noteworthy consultative process including provincial and national mental health summits between February and April 2012, a further vital step forward was taken in July 2013 when the National Health Council adopted the Mental Health Action Plan for South Africa and the Strategic Plan 2013-2020. The Mental Health Action Plan (2013-2020) sites four key objectives that every United Nations member state should execute in order to accomplish agreed targets. The four key objectives are to strengthen effective leadership and governance for mental health; provide comprehensive, integrated and responsive mental health and social care services in community-based settings; execute strategies for promotion of mental health and

prevention of mental illness; and reinforce data frameworks, evidence and research for mental health (Saxena, Funk & Chisholm, 2013).

However, despite such imperative legislation written on paper, several challenges face mental health service provision in South Africa. Among these challenges is the fact that mental health care continues to be under-funded and under-resourced compared to other health priorities in the country. This is despite neuropsychiatric disorders being ranked third in their contribution to the burden of disease in South Africa (Lund, Boyce, Flisher, Kafaar, & Dawes, 2009) after HIV & AIDS and other infectious diseases (Lund, Kleintjies, Kakuma, Flisher, the MHaPP Research Programme Consortium, 2009). There is an enormous inequity between provinces in the distribution of mental health services and resources, coupled with a lack of public mental health awareness and widespread stigma against those who suffer from mental illness (Lund, Kleintjies, Kakuma, Flisher, the MHaPP Research Programme Consortium, 2009).

While mental health is promoted in the White Paper and the Mental Health Care Act, in reality, mental health care is usually confined to the management of medication for those with severe mental health disorders. The identification and treatment of mental health disorders that are not always so observable, such as depression and anxiety disorders aren't as prioritized (Petersen, Bhana, Campbell-Hall, Mjadu, Lund, Kleintjies, et al,. 2009), more so in South African correctional facilities (Naidoo & Mkhize, 2012). This makes the execution of mental health protection and promotion seem discarded (Lund, Kleintjies, Kakuma, & Flisher, 2009).

With such realities, crime remains a problem, recidivism remains a problem leading to an increasing awareness and realisation that the current methods of

responding to crime are not as effective (Gould, 2013). Khwela (2014) further highlights inefficiencies within the Department of Correctional Services in South Africa by arguing that there is no difference between rehabilitation and incarceration due to the correctional environment. The rate of incarceration has increased dramatically where prisons are filled beyond capacity with disturbing congestion that leads to bad environments for the rehabilitation of offenders (Khwela, 2014). Crime continues inside the prison walls and gangs are rife behind bars (Singh 2008). The rate of recidivism is an indication that the offenders released by the Department of Correctional Services (DCS) are not yet rehabilitated (Freeman 2003).

In summary, there is an urgency to adjust our policies to reflect the real context and current living conditions of people in society. Policies should reflect the needs of a wide range of stakeholders and especially those most affected by those issues, and be based on sound empirical evidence.

2.3 Policy and legislation as it relates to Social Work practice

Essentially, social workers by very definition are human rights workers (Dunk, 2007). They have, for a long time been involved in advocacy and campaigning for social justice. They are placed ideally in places where they lobby for better evaluation and evidence-led policy to ensure that communities realise and claim their collective rights and that those rights and responsibilities are met (Dunk, 2007).

The social policy implications of this study point to the need to develop or incorporate policies that advocate for the implementation of risk assessment tools and particularly mental health screening tools among offenders. This will help in understanding and evaluating differences that exist among offenders through risk assessment (Onifade, Davidson, Campbell, Turke, Malinowski & Turner, 2008) which will inform

interventions. Additionally, this study set to assist social work practitioners within the Justice System and Correctional services, to develop or adapt current intervention strategies for such communities to ways that are relevant, effective, empowering and aim to treat causal factors to recidivism, and not just the symptom. This will occur through the use of valid risk assessment tools that help determine the mental health risk-needs of offenders that rehabilitative efforts can target (Bonta, 1996 as cited in Onifade, Davidson, Campbell, Turke, Malinowski & Turner, 2008). For example, using the Risk-Need Responsivity model of rehabilitation, which is a theoretical framework that was developed in 1990 by James Bonta, Donald Andrews and Paul Gendreau. It is used to develop recommendations for how inmates should be assessed based on the risk they present and what they need, and what kinds of environments they should be placed in to reduce recidivism (Bonta, Andrews & Gendreau, 1990). This model proposes five elements to consider in assessment and intervention, namely, risk, need, responsivity, general and specific factors. When looking at the risk factor, this model proposes that rehabilitation services should match the offender's risk to re-offend (Bonta, Andrews & Gendreau, 1990). When considering the need factor, this model proposes that criminogenic needs should be assessed and targeted in treatment (Bonta, Andrews & Gendreau, 1990).

The Risk-Need Responsivity model proposes that responsivity should maximize offender's ability to learn from a rehabilitative intervention by providing cognitive behavioural treatments and tailoring the intervention to the abilities, learning style, motivation, and strengths of the offender (Bonta, Andrews & Gendreau, 1990). The Risk-Need Responsivity model also proposes the use of cognitive social learning methods to influence behaviour. Finally, the Risk-Need Responsivity model proposes that specific psychological and behavioural

interventions that cultivate offenders' strengths, learning style, personality, motivation, and considers offenders' bio-social (e.g. race, gender) characteristics must be implemented (Bonta, Andrews & Gendreau, 1990).

The Risk-Need Responsivity model is regarded as the premier model for guiding offender assessment and treatment (Andrews, Bonta & Wormith, 2011) It is said to have strong unifying power and external consistency (Polaschek, 2012). It is said to have significant explanatory depth, where its empirical validity has not yet been falsified (Polaschek, 2012). This study prompts interventions that are cognizant of individual needs, the South African context, promote partnership to treatment and recognise the importance of mental health treatment moving forward.

In closing, implications of this study for social work practitioners through evidence stemming from the Ecological Systems Theory and Theory of Planned Behaviour, which speaks to whether or not the predictability of the models extend to staying out of criminal behaviour, which will prompt social service practitioners to integrate behaviour constructs into existing programs in an attempt to curb recidivism.

2.4 The nature and extent of recidivism among youth offenders

Bello (2017) argues that recidivism has come to be a norm among African inmates. Bello (2017) states 10 major causes of recidivism in Africa, namely, incorrigibility, failure of the sanction, failure of support in reintegration, failure of programs, peer pressure and other social provocations, economic stress, mental health, inability to attain employment, lack of education, and lack of support.

The current collection of statistics on recidivism in SA is not coordinated. Data on crime exist in different databases at numerous constituencies and are aimed at different target groups for different purposes. Therefore, generalization based on these

statistics on recidivism in South Africa is not practical. Tadi and Louw (2013) highlight that thus far, they are nine identified recidivistic predictors in SA, namely 1.) Age of arrest, the younger the offender was at the time of arrest, the more likely they are to re-offend. 2) Race, it is stated that Black individuals are not only at greater risk for arrest but to re-offend as it is noted they are subject to increased scrutiny by police which prompts biased observations. 3) Gender, research has generally centred around men, research on females are limited 4) Marital status has been noted as greatly influencing limited time spent with deviant peers, as well as deterring re-offence as offenders are afraid of losing the respect and security of family members. 5) Developmental history, problematic childhood marked by criminal behaviour, absenteeism, lying and fleeing away from home, are said to be best predictors of criminality. 6) Education, low education levels (not completing high school), as well as negative school experiences (absenteeism, expulsion) have been linked to re-offending as it further limits employment prospects. 7) Criminal history is noted as the strongest predictor of persistent criminal behaviour, as well as recidivism. 8) Employment history, unstable employment (regularly changing jobs, poor work attendance/performance) as well having a criminal record are barriers to employment especially considering South Africa's high unemployment rate. Lastly, 9) Substance use, used by offenders to deal with stressors, often leads to poor judgment, anger and conflict experienced during a drug-induced state ultimately lead to re-offence (Tadi & Louw, 2013).

Findings from the previously mentioned study concur with Becker and Murphy's (1998) argument that offenders re-offend because of their social environment, peers, family, lack of community support systems and appropriate policies to assist in their re-integration. It is evident from the findings above that

studies in South Africa have given little attention to mental illness and the implications or impact it may have on recidivist behaviour.

Research from various countries demonstrates that offending tends to peak during the teenage years (Muntingh & Gould, 2010). For example, in the US the peak age of arrest was 18 for robbery and 18 for forcible rape and 21 for aggravated assault (Muntingh & Gould, 2010). In England and Wales, the peak ages for criminal offences were 18 for males and 15 for females. Muntingh and Gould (2010) argue that the most common explanation for the peak during teenage years is social influences as individuals break away from parental guidance.

Zinn (2007) conducted in-depth interviews with 30 convicted house robbers in South Africa and found that 84% of the respondents were arrested for their involvement in house robberies between the ages of 18 and 33; and 83% of the respondents had been involved in other crimes before the specific robbery for which they were detained (Zinn, 2007). The average age at which the respondents encounter the law because of their criminal activities was 19 years (Zinn, 2007). Scholars argue that the young age of first arrest and a high number of convictions are the most reliable predictors of recidivism (Kingston, Olver, Harris, Wong & Bradford, 2015; Lund, Forsman, Anckarsater & Nilson, 2012).

The Department of Correctional Services Annual report (2016/17) indicate that the offender population by race was 79% African, 18% Coloured, 2% white, and 1% India/Asian. A plausible explanation for this is that black people are still the predominantly disadvantaged population. However, the racial composition of South Africa, where the majority of the population are blacks must be taken into account (Pillay, 2019)

A study by Reisig, Bales, Hay & Wang (2007) indicated that, compared with whites, African Americans are the majority of prison reentry population, and as such, have elevated amounts of recidivism when contrasted with whites (Reisig, Bales, Hay & Wang, 2007). The authors argue that the effects of inequality on White male recidivism are far less significant. Additionally, the authors argue that racial disparity escalates the threat of African American recidivism as they are deprived of equal access to "employers, health care services, and different organizations that can encourage a well-behaved reintegration into society" (Reisig, Bales, Hay & Wang, 2007: 408). The authors further posit that employment can decrease recidivism; however, for African American ex-detainees, securing a job, which is often difficult prior to imprisonment, becomes even more difficult after imprisonment (Reisig, Bales, Hay & Wang, 2007). Unsurprisingly then, it is evident that numerous black inmates will, for the most part, go back to correctional centres. This is not different for Black male individuals in South Africa. Tadi and Louw (2013) state that black people are at greater risk for arrest and re-offence in part due to biases in observation that increases scrutiny by police.

As in most places across the world, there is a perception that non-whites and particularly black men lack morality, control and that they are dangerous and lethal (Heitzeg, 2015). This image is ubiquitous across most nations (Entman & Gross, 2008 as cited in Heitzeg, 2015). The prejudices attached to black men disregard the maladaptive and extraneous conditions they have to survive under and rather place a responsibility on them to behave in an adaptive manner. This act criminalizes blackness as it fails to acknowledge the conditions and prejudices that are attached to black people for their mere existence as they forge their way through life.

As far as gender is concerned female offenders form only 2.6% of the prison population in South Africa (World Prison Brief data, 2017). However, female incarceration has increased by 68% over the past 10 years in South Africa (Prinsloo & Hesselink, 2015). Therefore, it is important to understand the factors that influence women's engagement in criminal behaviour so as to try to prevent it (Steyn & Booyens, 2017). Past research indicates that some of the factors that lead to female offence include; social marginalization and poverty (Jules-Macquet, 2015; Botha, Louw & Loots, 2016), unemployment and unstable relationships (Herbig & Hesselink, 2012).

A significant factor that impacts on women's employability is lack of education resulting in poor skills set. Women are also more likely to assume the role of being a sole financial provider or so-called breadwinner in their families as many are single mothers. A majority of female inmates are incarcerated for economic crimes such as theft and fraud, which can be linked to economic deprivation in the face high levels of unemployment in South Africa (Pillay, 2019). Other factors that contribute to female criminal activity are substance abuse, early exposure to alcohol and drugs, and prior victimization (Artz, Hoffman-Wanderer, & Moult, 2012).

Out of 243 jails in South Africa, just 22 accommodate female detainees. Hopkins (2017) states that by and large, female offenders are generally first victims of crime such as domestic violence and rape before they are perpetrators. Nevertheless, females do commit crimes and end up serving time in jail. Since SA's female prison populace is small and somewhat peaceful, it is often overlooked. Flower (2010) states that female offenders are economically marginalized and confronted with strenuous challenges when they return to their communities upon release from prison. Female offenders often lack education, which results in challenges securing employment,

which ultimately leads to a lack of economic independence (Lockwood, Nally, Ho, & Knutson, 2012; Makarios, Steiner, & Travis, 2010). When females do get a job, they work fewer hours and make less every hour than male counterparts (Flower, 2010).

Past research also asserts that female offenders released back into the community after incarceration often recidivated due to their inability to secure sustainable employment because of their lower levels of education (Buckmon 2015). Unfortunately, as per Bloom, Owen & Covington (2004) centres of correctional service generally offer little as far as gender-specific professional training is concerned. It must be noted though that during my data collection at the Durban Maximum correctional service, I learnt that the female correctional centre has a probation officer who is qualified in fashion and textile design and they run a sewing training program where female offenders are taught how to make clothes. Some of the clothes they make include offenders prison uniforms, the staff uniform etc. I thought this is something to be commended as it provides the women with a skill they can use to make a living for themselves once released from prison. However, that can only materialize given that they get the start-up resources and spaces to execute their skill, which is going to be imperative in steering them away from repeat offending (Flower, 2010).

In the United States in 2011, a PEW report demonstrated that the average national recidivism rate for released detainees was 43% (PEW report state of recidivism, 2011). According to a report by the Bureau of Justice Statistics (BJS), around 68% of 405,000 detainees released in 30 states in 2005 were incarcerated for a new offence within three years of their release from jail, and 77% were incarcerated within five years (Guerino, Harrison & Sabol, 2011). In 2012, the rate of recidivism increased to 50% in numerous jurisdictions (Ministry of Justice, 2012).

For a long time, there have been no studies conducted on criminal trajectories in South Africa to date, as such; very little detailed data exist about the life courses of offenders. Accordingly, it ought to be noted that recent studies investigating the nature and extent of recidivism and available statistics on recidivism in South Africa are limited, but estimates indicate that it is unacceptably high (Gaum, Hoffman & Venter, 2006).

Schoeman (2003) posited that recidivism rates in South Africa range between 55%-95%. Padayachee (2008) stated that recidivism ranges between 80%-94%. Khwela (2015) stated that general rates for recidivism range between 50%-70% for offenders who recidivate within a period of three years. Khwela (2015) further states that the impact of educational programs on recidivism reduce the rate by at least 29%. Padayachee (2008) states that though research has shown that recidivism is as high as 90%, many offenders recidivate in less than six months to a year. This indicates the varying difference in data disseminated to the public to indicate the recidivism rate.

2.5 The prevalence and correlates of mental health disorders and recidivism among youth offenders

The prevalence of mental illness among youth offenders in South Africa has not been examined extensively. Yet, the mental health of an offender can be one of the most important predictors of recidivism (Bello, 2017). Mental illnesses present themselves through clusters of manifestations, or illness experiences (APA, 2013). When these manifestations, or experiences, are associated with critical distress and impairment in one or more domains of human functioning (for example, learning, working or family relationships), they are characterized as clinically significant mental disorders (APA, 2013). These crippling disorders include a number of unique

conditions, which affect people across the life course, with different epidemiological attributes, clinical features, prognoses and possible intervention strategies (Patel, Lund, Hatherill, Plagerson, Corrigall, Funk, et al., 2010).

Offenders living with mental illness may not have the capacity to appreciate their criminality and therefore may not respond to punishment, rehabilitative programs, or any other measure taken in response to their crime (Bello, 2017). As such, their tendency to re-offend may continue until their mental health challenges are addressed. If these mental health issues remain untreated, youth offenders may find themselves offending repeatedly because they are not able to adjust adequately (Juvenile Law Center, 2015 as cited in Bello, 2017).

Tolan and Guerra (1994) argued that children of inmates are at high risk for aggressive behaviour, difficult temperaments, impaired functioning, and lack coping skills. These identifiable risk factors are attributed to criminal and antisocial behaviour (Tolan and Guerra, 1994), negative peer influences, disrupted family processes, and poor school performance (Calhoun, Glaser, & Bartolomucci, 2001).

Most mental disorders have their origins in childhood and teenage years (Barrett, Katsiyannis, & Zhang, 2014). By the age of 14, about 10-20% of children and adolescent begin to develop mental health issues (WHO, 2013-2020). In South Africa, childhood adversity has been significantly connected with mood disorders (Seedat, Stein, Jackson, Heeringa, Williams, & Myer, 2009), posttraumatic stress disorder, major depression and substance-related disorders. These factors are also said to significantly increase the probability of not completing secondary school (Myer, Stein, Jackson, Herman, Seedat & Williams, 2009), which has implications for employability later on in life. Calhoun, Glaser and Bartolomucci (2001) further argue that youth and adolescents who are involved in the criminal justice system as juvenile

offenders, often exhibit poor relational abilities, which are often reflected in poor anger management skills, poor interpersonal skills, and poor decision-making skills.

When sexual orientation is considered (Dixey Nyambe, Foster, Woodall and Baybutt, 2015; Steyn and Hall, 2015) posit that female offenders tend to have poorer mental health compared to women in the general population. Emotional and mental health disorders are triggered by correctional facility stressful environments (Adams, 1992). The experience of violence, overcrowding, absence of resources or the lack thereof as well as turmoil between inmates and different social groups within the correctional facility (Fraser, Gatherer & Hayton, 2009; Peacock, 2006). For female offender who are mothers, the experience of having to leave dependents behind also increases stress. Female offenders who are mothers are not typical inmates, a mother in a correctional facility has to cope with a larger set of psychological obstacles, for example, having to balance the role of mother and inmate in an environment that is initially not intended for mothering and child-rearing (Fraser, Gatherer & Hayton, 2009; Peacock, 2006).

Due to mental health issues and the very nature of incarceration, there are limited opportunities for the development of positive mother and child attachment whilst incarcerated (Schoeman & Basson, 2009). Evidence suggests that specialized programs addressing parent-infant relationships need to be implemented, and not doing so can be detrimental to infant development as well as the psychological well-being of the mother (Baradon, Fonagy, Bland, Lenard & Sleed 2008).

Other researchers also concur that there is a high prevalence of mental disorders among female inmates (Steyn & Hall, 2015). Throughout the years, incarcerated mothers have generally been coercively isolated from their babies after

birth, where there was little, if any, time for bonding, which brought about detrimental mental health issues for mothers such as depression (Chambers, 2009).

Anaraki and Boostani (2014) described the separation of mother and child as the most difficult part of incarceration and is said to be mentally and emotionally strenuous on both the mother and newborn child. Incarcerated mothers have to cope with being away from their children when it is decided by the court that it is in the best interests of the child to be removed from the mother's care within the correctional facility or if the child is over the age of two. Consequences of separating a mother and child can last for several years, much like the psychological and emotional impact (Anaraki & Boostani, 2014).

A comprehensive process of consultation in provinces involving over 4000 people in South Africa, showed that mental and neurological disorders account for 13% of the global burden of disease and 25.3% and 33.5% of all years lived with a disability in low- and middle-income countries, respectively (National Mental Health Care Policy Framework and Strategic Plan, 2013-2020). In South Africa, neuropsychiatric disorders rank 3rd in their contribution to the overall weight of disease - after HIV/AIDS and other infectious diseases (National mental health care policy framework and strategic plan, 2013-2020). A nationally representative study by Williams, Herman, Stein, Heeringa, Jackson, Moolmal and Kessler (2008) looking into mental disorders in South Africa among 4351 adults ages 18 and above, indicated that approximately, 75% of people in South Africa who suffer from a mental disorder do not receive any mental health intervention (Williams, Herman, Stein, Heeringa, Jackson, Moolmal &Kessler, 2008).

There are also substantial disparities in mental health provision among provinces and especially between the private and the public sectors as well as between urban and rural areas (National mental health care policy framework and

strategic plan, 2013-2020). Mental health services within general health care and community- based mental health services are underdeveloped. People living with mental disorders and disabilities continue to be stigmatized and discriminated against in most aspects of their lives. The National mental health care policy framework and strategic plan (2013-2020) states that interventions are especially essential during childhood and adolescence stage owing to the fact that most mental disorders have their origin in childhood and adolescence.

Naidoo and Mkize (2012) conducted a qualitative research study to determine the prevalence of serious mental disorders in a correctional facility population in Durban, South Africa. This study was the first to study the prevalence of psychiatric disorders among the prison population in Durban, South Africa. Results of this study revealed that there is a high prevalence of serious psychiatric disorders among inmates. Participants consisted of 193 inmates who were interviewed using the Mini Neuropsychiatric Interview (MINI). The MINI was deemed suitable for this study, as it comprised of sections that examine psychotic, mood, anxiety, substance use and eating disorders. The key findings of this study suggested that there is a high prevalence of mental disorders among inmates in a prison population in Durban.

Particularly participants in this study were diagnosed with psychotic, bipolar, depressive and anxiety disorders. Diagnosed offenders also had substance and alcohol abuse as common disorders. Naidoo and Mkize (2012) concluded that inmates in South Africa are not diagnosed or treated for mental disorders. This is not an issue particular to South Africa, as such findings concurred that of Schnittker et al,. (2012) a sociologist at the University of Pennsylvania, who stated that inmates with mental illness are not treated for their conditions in prison and because of this their numbers are on the rise. Naidoo and Mkize (2012) recommended that more

prominent mental health awareness and further research is done throughout South Africa since their study was with a small sample. This further warrants my study as it aims to go beyond establishing the prevalence of mental disorders among offenders but to determine the predictive relationship of mental health on recidivism.

2.6 Mental health disorders, appetitive aggression, and recidivism among youth offenders

Childhood trauma may fuel the persistence of numerous psychiatric disorders (Teicher & Samson, 2013). A number of studies have shown that childhood trauma can have a long-term impact on the overall conducive development of a child. Cicchetti (1990) alluded to the consistent and problematic effects of maltreatment on the child's ability to negotiate stage-salient developmental tasks. Children who have experienced maltreatment are said to more likely commit offences as adults (Mersky & Topitzes, 2009), become delinquent at a younger age (Ryan, Herz, Hernandez, & Marshall, 2007), and commit a violent offence (Widom & Maxfield, 2001).

Other studies have shown that childhood maltreatment consistently predicts subsequent behavioural difficulties and delinquency in early adolescence (Li & Godinet, 2014). Considering that childhood maltreatment is strongly associated with delinquency, there are strong grounds to expect childhood maltreatment to also associate with recidivism. A study by Ryan (2006) demonstrated that youth offenders (n = 286) with a history of childhood physical abuse and neglect were 1.58 times more likely to recidivate within 10 years (50% vs. 37%) as compared to youth offenders who were not abused.

In another meta-analysis with 1,542 sexually abusive adolescents, Mallie, Viljoen, Mordell, Spice, and Roesch (2011) found that there is a significant (albeit small) relationship between the history of childhood sexual abuse and sexual recidivism (OR = 1.51, $p < .05$) from 29 effect sizes that were obtained from 11 studies.

A relatively recent study by Li, Chu, Goh, Ng and Zeng (2015), examined the impact of childhood maltreatment on youth offender recidivism in Singapore, using case file coding on a sample of 3,744 youth offenders aged 12-18, among whom some had a childhood maltreatment history. The researchers made use of the Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI 2.0) which significantly predicted recidivism. The result from a Cox regression analysis showed that maltreated youth offenders were 1.38 times likely to re-offend within a follow-up period of up to 7.4 years. However, the results also inferred that the YLS/CMI 2.0 measures were not sufficient for assessing the risk for recidivism for the maltreated youth offenders.

Kerig, Ward, Vanderzee, and Moeddel (2008) investigated the interrelationships between trauma exposure, PTSD, and mental health problems in a sample of 289 adolescents (199 males, 90 females) detained in a juvenile correctional facility. Mean differences were found, in that females scored higher than males on measures of interpersonal trauma exposure and symptoms of both simple and complex PTSD (Kerig, Ward, Vanderzee & Moeddel, 2008). Findings also indicated that female participants had more mental health problems in the areas of depression/anxiety, somatic complaints, and suicidal thoughts. For all youth, trauma exposure, PTSD, and mental health problems were correlated (Kerig et al., 2008).

Along with other factors that have an influence on recidivism is appetitive aggression. Weierstall, Haer, Banholzer, and Elbert (2013) posit that appetitive aggression is based on the premise that the perpetration of violence is rewarding. Additionally, the perpetrator must willingly want to harm the victim and the victim must want to avoid this behaviour (Bushman & Anderson, 2001). Scholars in Germany, predominantly by from the University of Konstanz, have administered studies pertaining to appetitive aggression among former combatants (Elbert, Weierstall, & Schauer, 2010). Commonly, human aggression is understood as any behaviour towards another individual that includes the intention to harm (Geen, 2001).

Literature differentiates between two major forms of aggression: reactive and instrumental aggression (Fontaine, 2007). Reactive aggression is known as emotional, imprudent, or antagonistic hostility. It can also be perceived as impulsive, driven by anger, and occurring as a reaction to some perceived provocation or threat (Anderson & Bushman, 2002). Instrumental aggression, however, is planned, deliberate and target or goal-oriented (Anderson & Bushman, 2002).

Such aggressive behaviour seems to be a common adaptation in adverse conditions. Along these lines, children raised within armed groups may also develop attitudes and values that favour harming others when socialized within a combat force (Weierstall, Haer, Banholzer and Elbert, 2013). It is widely accepted that the expression of aggression and the degree to which aggressive behaviour is accepted or punished is determined by a socializing environment (Snyder & Patterson, 1995). Consequently, scholars argue that processes in the environment are responsible for shaping aggressive behaviour (Weierstall et al., 2013).

Weierstall, Haer, Banholzer and Elbert (2013) examined two critical factors that are believed to promote the development of appetitive aggression. The first one addresses variables related to the socialization process, the second factor considers the perpetration of violence itself. Their study sample consisted of 95 former members of Congolese armed forces between the ages of 15 and 46 years, five of the participants were female. Most of the participants were adolescents when they joined an armed force for the first time. Of the 95 participants, 49 reported that they had voluntarily joined an armed force, and 14 of the 49 participants indicated that they had joined an armed force more than once, another 23 participants indicated that they had joined an armed force voluntarily atleast once but were also abducted one or more times during their life. Another 23 of the participants indicated that they were only abducted into an army force. Therefore, there was a mix of participants who had joined voluntarily and involuntary. A 15-item Appetitive Aggression Scale (AAS) was used to measure appetitive aggression (Weierstall & Elbert, 2011). Key findings showed that combatants that had elevated levels of appetitive aggression were those who joined the force earlier in life (Weierstall & Elbert, 2011). The results showed that when civil socialization is replaced by socialization within an armed group early in life, self-regulation of appetitive aggression may become deficient, leading to a higher propensity towards aggressive behaviour

Hinsberger, Sommer, Kaminer, Holtzhausen, Weierstall, Seedat, Madikane and Elbert (2016) posit that life in low-income urban communities of South Africa are engraved by a cycle of violence in which youth males are predominantly in the roles of both victim and perpetrator. However, the role of appetitive aggression in the context of ongoing threats and daily hassles have not yet been fully studied and understood in South Africa.

Along these lines, Weierstall, Hinsberger, Kaminer, Holtzhausen, Madikane and Elbert (2013) examined whether appetitive aggression serves as a protective factor for the development of psychosocial dysfunction and the expectation of future danger among male youth offenders living in a high-violence context. A sample of 69 youth male offenders living in two high-violence communities in Cape Town, South Africa, completed a measure of trauma exposure, PTSD, appetitive aggression, reactive aggression, psychosocial functioning, and concerns about future threats. The researchers hypothesized that those who are attracted to perpetrating violence are less likely to develop psychosocial dysfunction and will show lower concerns about experiencing future danger (Weierstall et al., 2013).

Findings indicated that participants with higher PTSD symptoms had lower psychosocial functioning and more concern about future threats (Weierstall et al., 2013). However, participants with high appetitive aggression showed better functioning and fewer concerns about future threats (Weierstall et al., 2013). Such findings suggest that, for youth offenders living in contexts of ongoing violence, appetitive aggression may serve a psychologically self-protective function (Weierstall et al., 2013).

Another study by Hinsberger, Sommer, Kaminer, Holtzhausen, Weierstall, Seedat, Madikane and Elbert (2016) examined the role and impact of appetitive aggression on posttraumatic stress disorder (PTSD) severity and violence perpetration in areas of continuous traumatic stress exposure. The researchers hypothesized that higher levels of continuous traumatic stress (witnessed as well as self-experienced) will predict higher levels of appetitive aggression. Within this study, the researchers did a replica of previous studies with a larger South African sample, to determine if an attraction to cruelty protects individuals from the development of posttraumatic stress as it does in post-conflict areas, or increases it in areas of continuous stress

(Weierstall, Hinsberger, et al., 2013). The researchers also wanted to determine if, in post-conflict areas with ongoing violence, a stronger attraction to cruelty would lead to more offences (Crombach, & Elbert, 2014).

A sample of 290 young males from two low-income communities in Cape Town were surveyed. Key findings indicated that witnessed as well as self-experienced traumatic events predicted appetitive aggression (Hinsberger et al., 2016). Higher appetitive aggression resulted in higher levels of PTSD and violence perpetration (Hinsberger et al., 2016). Therefore, Hinsberger et al. (2016) concluded that young males living in low-income areas of South Africa might develop an attraction to aggression in response to exposure to violence. Their willingness to fight increases the likelihood of continued violent behaviour (Hinsberger et al., 2016). In contrast to previous research in post-conflict areas, appetitive aggression and engagement in violence did not prevent the development of PTSD in this study but instead was associated with higher levels of posttraumatic stress disorder (Hinsberger et al., 2016).

To date, these have been the only studies conducted in South Africa focused on such a phenomenon (appetitive aggression) as a possible predictor for recidivism. Albeit the fact that numerous symptoms of mental illness are likely to increase aggression, which triggers criminal behaviour engagement among the youth (Day & Wanklyn, 2012). This study contributes to bridging the research gap that currently exists as far as appetitive aggression and its impact on recidivism.

2.7 Substance use, mental health and recidivism

Substance abuse among the youth is a major concern in the South African context as it hinders this population group full participation in the socio-economic development of the country. Substance abuse (including alcohol, tobacco and illicit drugs) is a critical challenge in South Africa (National mental health policy framework and strategic plan, 2013-2020). South Africa has the most elevated occurrence of alcohol abuse in the world, after Ukraine. The consequences of the patterns of substance abuse include increased risk for mental disorders, crime and violence (Huggins, 2015), and motor vehicle injuries (National mental health policy framework and strategic plan, 2013-2020).

The aetiology of alcohol abuse in South Africa can be traced back to the apartheid era through the dop system (London, 1999). The dop system and its enduring effects continue to plague parts of South Africa, predominantly in the Western Cape Province (London, 1999). The dop system was a system used during the apartheid era wherein employers paid their employees with cheap wine, or dops instead of money. The dop system is no longer legal in South Africa, yet alcoholism remains one of the major challenges confronting the health services particularly in the Western Cape. Communities report that alcohol-related trauma; high rates of TB, child and adult malnutrition, and Foetal Alcohol Syndrome (FAS) are common in the Western Cape (London, 2014). Until recently, Western Cape had the highest rates of foetal alcohol syndrome (FAS) in the world and is now surpassed by the Northern Cape (National mental health policy framework and strategic plan, 2013-2020).

Western Cape is faced with a growing methamphetamine (tik) pandemic and cannabis remains the most common drug in the country, with high use among the youth.

Social issues related to alcohol, including child abuse, violence against women and family disruption, are significant impediments to health (London, 2014). It should therefore not be surprising today that the alcoholism legacy instigated by dop system remains prevalent in certain parts of South Africa particularly among the Black African and Coloured communities. I lay this foundation as I move along in my literature because it is important to understand that in order for one to provide a long-term solution for a problem, they must fully comprehend the roots of the issue and its effects.

A lot of social, health and economic problems are attributed to the alarming drug and alcohol abuse among populations in South Africa (UN World Drug Report, 2014). Substance dependency statistics show that drug consumption (cannabis, cocaine, and tik) in South Africa were double the global average and second to none in Africa (UN World Drug Report, 2014). According to the UN World Drug Report (2014), the average age of drug dependency is 12 years and diminishing in South Africa. South Africa is among the top 10 narcotics and alcohol abusers in the world (UN World Drug Report, 2014). In every 100 individuals, 15 have a drug problem and the main drugs abused are cannabis, methamphetamine, heroin and cocaine (UN World Drug Report, 2014). The recent legalization of private cannabis use in South Africa has stirred many heated debates around the pros and cons of this legalization. There are concerns about the long-term impacts on society and how the law is going to be enforced among users such that it does not violate the rights of other people.

Van Zyl (2011) argues that although youth offenders are confined within correctional centres, illegal substances are readily available within centres of correctional service. Youth offenders are very creative in finding ways to bring/receive (to smuggle) drugs into prison (Van Zyl, 2011). Where gangs within the prison are primarily involved in the acquisition and sale of illegal drugs to fellow inmates. Van Zyl (2011) argued that within the Pollsmoor Correctional Services facility in Cape Town, there is no structured admission of new offenders that take into account, youth offender's substance dependency, the nature of dependency, and current addiction. Increased volumes of daily admissions, along with the pressure brought about by the inevitable shortage of suitable practitioners, results in an admission process where information regarding substance abuse is not inquired into, but rather given voluntarily. That is often rare as some of these substances are illegal and thus further incriminating (Van Zyl, 2011).

A study by Plüddemann, Flisher, Mathews, Carney and Lombard (2008a) indicated that alcohol, tobacco and cannabis are the most common psychotropic substances used by children and adolescents in South Africa. They are the major causes of violence and crime, and other social problems including unsafe sexual behaviour, early sexual debut (McGrath, Nyirenda, Hosegood & Newell, 2009), educational problems (Townsend, Flisher & King, 2007), school drop-out (Flisher, Townsend, Chikobvu, Lombard & King, 2010), as well as mental and physical health problems. (Degenhardt & Hall, 2006).

Shabangu (2011) further concurs to this by arguing that there is a strong correlation between substance use and violent crime in South Africa, where serious and chronic juvenile offenders are more likely to abuse substances than any other type of juvenile offender. Shabangu argues that further studies investigating substance use amongst offending populations are of critical importance. I agree with this especially because research has also shown that very often, offenders commit criminal acts in order to support their substance use behaviour (Hiday & Wales, 2009).

In South Africa, there is a dearth of literature pertaining to the relationship between mental illness and substance use/abuse such that the presence of both factors is associated with a greater likelihood of recidivism than either variable alone. As such, the role of substance use on the relationship between mental health and recidivism is not yet fully investigated and understood. International studies, on the other hand, have shown that mental illness and substance use increases the likelihood of repetitive criminal behaviour (BJS, 2006).

A study by Putkonen, Ryynänen, Eronen and Tiihonen (2007) with individuals who are homicide recidivists in Finland, showed that 69% of the recidivists were alcohol abusers, 63% had a personality disorder, 60% had both disorders, 11% were diagnosed with schizophrenia, and 6% had major depression.

In another study by Matejkowski, Drain, Solomon, and Mark (2011), it is reported that offenders on community release living with mental illness and substance use disorder, have more criminal offences than offenders on community release without a mental illness or substance use disorder.

A study conducted by Buckmon (2015) in America, indicated that mental illness and substance use disorders are the leading predictors of recidivism among criminal offenders. Legislatures have criminalized several common psychiatric disorders, particularly substance abuse (American Psychiatric Association, 2013), as a genuine psychiatric disorder. The criminalization of drug addiction, which is a mental illness, means that some inmates are in part incarcerated due to their psychiatric disorders (Schnittker, Massoglia, & Uggen, 2012). This has implications for the need for substance abuse treatment pre-mid and post-prison (Hakansson & Berglund, 2012).

In South Africa, Sommer, Hinsberger, Elbert, Holtzhausen, Kaminer, Seedat, and Weierstall (2017) investigated the interplay between trauma, substance abuse, and appetitive aggression and its relation to criminal activity among high-risk males. Findings confirmed a positive relationship between exposure to traumatic events and PTSD symptom severity, appetitive aggression, the number of committed offences and drug abuse prior to violence perpetrated. PTSD symptoms were positively associated with the propensity toward aggression. Furthermore, severe drug abuse was correlated with a higher attraction to violence and more committed offences (Sommer et al., 2017). A recent study by Morgan and Del Fabbro (2018) with 80 recidivists and 100 non-recidivist demonstrated that substance use disorder and antisocial personality disorder are indeed associated with high risk for recidivism.

2.8 The applicability of the theory of planned behaviour to determine recidivist behaviour among youth offenders

Numerous studies utilizing the Theory of Planned Behaviour to predict behaviour have concentrated on predicting condom use as well as substance use/abuse (John-

Langba, 2007). In South Africa, the Theory of Planned Behaviour has not been used to predict recidivism, as such, there is paucity on literature pertaining to attitudes, subjective norms, and perceived behavioural control as predictors of recidivism.

Therefore, the subsequent section presents international studies that have investigated the impact of attitudes, subjective norms/peer association and perceived behavioural control to predict recidivism. Some of these studies are old but are the only ones the researcher has come across that implicated these elements in the prediction of recidivism. A very distinct contribution of the current study in South Africa is that it brings about new knowledge pertaining to the elements (i.e. attitudes, subjective norms, perceived behavioural control and intention) in predicting recidivism. This sets this study apart from other studies that have investigated predictors of recidivism in South Africa, as it is the first of its kind to use the theory of planned behaviour.

Attitudes towards re-offending behaviour/recidivism among youth offenders

Gluek and Gluek (1950) first recognized antisocial attitude and cognition as important predictors of criminal behaviour. Gluek and Gluek (1950) postulate attitude and cognition as aspects that distinguish criminals from non-criminals, and described the two dispositions, attitude and cognition respectively, as attitudinally hostile, defiant, suspicious, stubborn, adventurous, unconventional, and non-submissive to authority as well as cognitively direct and concrete rather than symbolic, less methodical in problem-solving. Furthermore, Analysts have chosen distinctive terms with various mixes of adjective and noun, including antisocial, pro-criminal, or criminal attitude, cognition, or orientation to denote the broad concept consisting of criminally oriented attitude, values, beliefs, and rationalizations (Simourd & Olver, 2002).

A study by Bandura (1977) considered the connection between criminal attitude and criminal behaviour as reciprocal. The construct of criminal attitude was discussed as one of the most influential risk factors for criminal behaviour (Andrews & Bonta, 1998). However, the terminology of criminal attitude has not been used constantly (Jung, 2010). Criminal attitude is multi-dimensional and existing scales on criminal attitude measure different aspects of attitude including attitude toward the justice personnel and system, criminal identification, tolerance toward law violation and violence, antisocial intent, and neutralization (Mills & Kroner, 1999). Theories point to the significance of attitude in determining behaviours in relevant disciplines of social psychology (Ajzen & Fishbein, 1980; Bandura, 1977), criminology (Hirschi, 1969; Sutherland & Cressey, 1978), and forensic/criminal psychology (Andrews & Bonta, 1998).

An investigation by Gaum, Hofmman and Venter (2006) pointed out poor treatment compliance and attitude towards treatment as predictors of recidivism. Most participants in their study were sentenced for their initial sexual crime before 1995 and had not been involved in treatment programs. Participants attributed their non-involvement in effective interventions as a reason for their relapse. However, participants reported that as part of their current sentence, they were obligated to complete the standardized Sexual Offenders Rehabilitation Program (Gaum, Hofmman & Venter, 2006). With their first sentencing, the respondents reported that they were either no rehabilitation programs at the time of their first sexual offence, or they were involved, but unresponsive and therefore may have recidivated because of that (Gaum, Hofmman & Venter, 2006). All the participants indicated that it was their second sexual offence that resulted in imprisonment while other non-sexual offences may have occurred but had a non-custodial outcome (Gaum, Hofmman & Venter,

2006). The study, therefore, reflected a lesser successful rehabilitation phase. Thus non-access to or unavailability of treatment or a general attitude of non-compliance towards treatment was highlighted as a risk factor for recidivism in sexual offending (Gaum, Hofmman & Venter, 2006).

Jung (2010) conducted a study with the objective to longitudinally examine the relationship patterns between criminal attitude, criminal associates, and recidivism among Black (n = 109) and White men (n = 107) released from Allegheny County Jail in Pittsburgh, Pennsylvania. The investigation examined two attitudinal dimensions – autosuggestion and attitude toward community-based services (subsequently referred to as CBS attitude). Autosuggestion measures the likelihood of ex-inmates future offending. CBS attitude is an important measure among jail populations given short jail stays and the critical role played by community-based services in ex-inmates' reintegration. Results showed that criminal associates predicted recidivism and attitude, but attitude alone did not predict recidivism and associates. CBS attitude predicted recidivism (Jung, 2010). Autosuggestion interacted with age and CBS attitude interacted with race in predicting recidivism (Jung, 2010). The researcher concluded that attitude change over time makes for a better predictor for recidivism and criminal associates than attitude measured at one particular time (Jung, 2010).

A study by Gantana, Londt, Ryan, and Roman (2015) exploring and describing factors that contribute to recidivism among incarcerated sexual offenders demonstrated that a stronger existence of prior criminal involvement, pro-offending behaviour, gang associations and substance abuse are factors that contributed to their participants' recidivism. The participants' adverse developmental experiences, as well as, the traumatic events that they had survived, were present during the initial sexual offence, while factors, such as substance abuse, pro-offending attitudes and deviant

subculture involvement, were more prevalent in sexual recidivism (Gantana, Londt, Ryan & Roman, 2015).

According to Schwartz (2002), institutional factors likewise affect recidivism as prisons often do more harm than good. Prisons across the world have become epitomized by dynamics such as corruption by officials, gang activity, a sense of estrangement and mental ill-health among offenders (Krestev, Prokipidis, & Sycaninias, 2002), abuse of power, fear (Schwartz 2002), humiliation, and a culture where basic needs such as food and education are perceived as benefits that can be removed at the whim of the authorities. The attitude of prison officials that rehabilitation 'does not work' has come to be disquietingly common (Van Wyk, 2015). One of the consequences of such an attitude is that public authorities tend to not have confidence in rehabilitation, and offenders are viewed as incorrigible and chronic and are treated within that capacity which has an impact on their rehabilitation (Vogelman, 1990). This myriad of factors militating against rehabilitation can contribute to the exacerbation of recidivism.

Subjective norm/Peer association and recidivism among youth offenders

Numerous key theories in criminology and social psychology have recognized attitude as a critical risk factor predicting illegal behaviour and furthermore clarified why criminal attitude signals criminal behaviour, in close relation to criminal peers/subjective norms (Jung, 2010). Criminal associates are said to be a significant risk factor for criminal behaviours and are firmly connected with criminal attitudes (Andrews & Bonta, 1998). Criminal associates become the mechanism that individuals with criminally oriented attitudes turn to for criminal behaviours. Joining or forming the company of criminal associates becomes more appealing to those with

criminal attitudes, as individuals in these groups feel that their thoughts and sentiments are shared. Along these lines, they stay connected, spend time together, provide criminal opportunities, motivate and build each other's confidence and self-esteem toward criminal offending, and reinforce and support further crime (Jung, 2010). Inversely, criminal attitude are transmitted and learned from criminal associates and are further strengthened and reinforced by criminal associates (Jung, 2010).

In a study by Cobbina, Huebner, and Berg (2012), association or social bonds (e.g., parents and intimate partner) with others were found to influence reoffending. Men and women with positive parental relations took long to recidivate, whereas relations with intimate partners significantly influenced recidivism. For example, women with strong intimate association or social bonds remained free of arrest for longer periods than females without strong social bonds. Men who associated with criminal peers, on the other hand, reoffended more quickly than females (Cobbina et al., 2012). As with other studies, this research showed that offenders often engage in criminal behaviour because of their association or social bonds with others that hold similar beliefs or behaviours (Cobbina et al., 2012).

In summary, one's criminal attitude prompts criminal behaviour through criminal associates, and criminal attitude is learned from criminal associates (Jung, 2010). A cyclical relationship is formed. Whereby, criminal attitude, learned in part from criminal peers, facilitates further criminal networks, which in turn become the facilitator for criminal behaviour (Jung, 2010). They are likely to remain unchanged for a long time or years if no treatment or interventions are provided (Hanson & Harrison, 2000), but appropriate and adequate interventions may bring about changes.

Perceived behavioural control and recidivism among youth offenders

Tolman, Edleson and Fendrich (1996) examined the ability of Ajzen's (1988; 1991) Theory of Planned Behaviour (TPB) to explain men's termination of violent behaviour. TPB suggests that a man's intention to abuse his female partner and his subsequent abusive behaviour will be determined by (1) his assessment of possible outcomes of abusive behaviour (attitudes toward behaviour); (2) his perception of the expectations of others around him concerning violence (subjective norms) and (3) the extent to which he believes he can control his abusive behaviour (perceived behavioural control). Pre-test self-report measures from men and follow-up recidivism data based on partner report were used for 176 cases drawn from a previous study conducted by Harrell (1991). Regression analyses testing the TPB model provided modest support for the prediction of intention to re-abuse and subsequent abusive behaviour. Of the TPB variables, perceived control was the most important in understanding barterers' intentions to abuse and their subsequent abusive behaviour.

Kiriakidis (2008) examined the applicability of the Theory of Planned Behaviour in predicting young offenders' behavioural intentions to re-offend. Findings showed that attitudes and perceived behavioural control are necessary factors for the prediction of intentions to re-offend, while subjective norm had a weak significance.

Intention and recidivism among youth offenders

Gonzalez (2007) investigated the impact of intention in predicting recidivism within one year following an inmate release using Ajzen's (1985) planned behaviour model as a theoretical framework. Findings of the study indicated that attitude toward recidivism, subjective norms, and perceived behavioural control made independent

contributions to the prediction of intention to recidivate. Intention was significantly correlated with recidivism. Attitude toward behaviour, mediated by intention, significantly predicted recidivism. Gonzalez (2007) concluded that the theory of planned behaviour is useful for the prediction of recidivism.

2.9 Summary

In summary, determining factors that influence recidivism is of paramount importance in efforts to alleviate and ultimately eradicate recidivism. This study acknowledges and addresses the current gap in South African literature that fails to examine internal and external factors that increase the likelihood of recidivism. It also recognizes the gap in the literature that has not yet examined the applicability of the Theory of Planned Behaviour in predicting recidivism. Both theories are appropriate for providing the theoretical framework to explain risk factors associated with recidivism. The next chapter outlines the theoretical framework of this study.

CHAPTER 3

THEORETICAL FRAMEWORKS

This chapter provides an overview of the theoretical frameworks used in this study. This study utilized different sources for discussing these theoretical frameworks, including books, online journal articles, and scholarly articles.

The researcher read and is aware of criminology, sociology and psychology theoretical frameworks used to understand and explain criminal behaviour. These theories include, sociological theories (e.g. Strain theory, theory of differential opportunity, subcultural theory), biological theories (linked with genetic predispositions), psychological theories (e.g. psychodynamic/psychoanalytic theory, cognitive behavioural theory), social-psychological theories (e.g. social learning theory, labeling theory, control theory, differential association reinforcement theory).

Although there are numerous theories of crime, this study utilized Bronfenbrenner's (1977) Ecological Systems Theory, as well as Ajzen's (1985) Theory of Planned Behaviour as lines of inquiry for this study. These theories are best fitting for this study as they are respectively a macro and micro theory and examine the internal, external, proximal and distal factors that influence recidivism. This study utilised the Ecological Systems Theory as the foundation conceptual framework to determine the impact of mental health on recidivism among incarcerated youth offenders in South Africa and the role of substance use. The Theory of Planned Behaviour was used to predict recidivism among youth offenders. Consistent with the Ecological Systems Theory and the Theory of Planned Behaviour, the focus was on a combination of internal and external factors that place youth at risk of re-arrest. In

terms of mental health screening, a particular focus of the assessment was on anxiety disorder and depression.

South Africa is in a continuous quest to fight past imbalances brought about by its racist past that criminalized all non-whites and particularly black people, which had implication for mental health. The country is now in the process of reconciliation and psychological healing (Gobodo-Madikizela, 2016). The mental health disorders selected in this study are because they are part of the common mental health disorders that have often been associated with societies that have a history of crime and violence. They are also chosen because current studies in South Africa have not studied extensively the particular matrix of these disorders in relation to recidivism.

3.1 The Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is an adaptation of the Theory of Reasoned Action developed in 1980 to predict an individual's intention to engage in a behaviour at a specific time and place. Ajzen (1980) posits that the theory of reasoned action is a replica for the prediction of behavioural intention, spanning predictions of attitude and predictions of behaviour. The theory was proposed to explain all behaviour over which people have the ability to exert self-control. The theorist posits that the key component to the theory of planned behaviour is the behavioural intent, which is influenced by the attitude about the likelihood that the behaviour will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome (Ajzen, 1980).

The strength of the theory of planned behaviour to the problem area of recidivism is centred on its ability to predict volitional behaviour in a systematic and scientific manner. Various studies that used the Theory of Planned Behaviour have

shown how volitional behaviour can be explained by limited concepts. The Theory of Planned Behaviour is grounded in three independent constructs: attitudes, subjective norms, and perceived behavioural control (Ajzen, 1985). This generally means that individuals will try to perform a behaviour if they believe the benefits of success are out-weighed by the consequences of failure and if they feel significant others (with whom they want to comply) believe they should attempt to perform the behaviour (Ajzen, 1985). Execution of the behaviour will be the end-result if the individual has sufficient control over the internal and external factors that influence the execution of behaviour (Ajzen, 1985).

According to Ajzen (1988), the assumptions of TPB include the following:

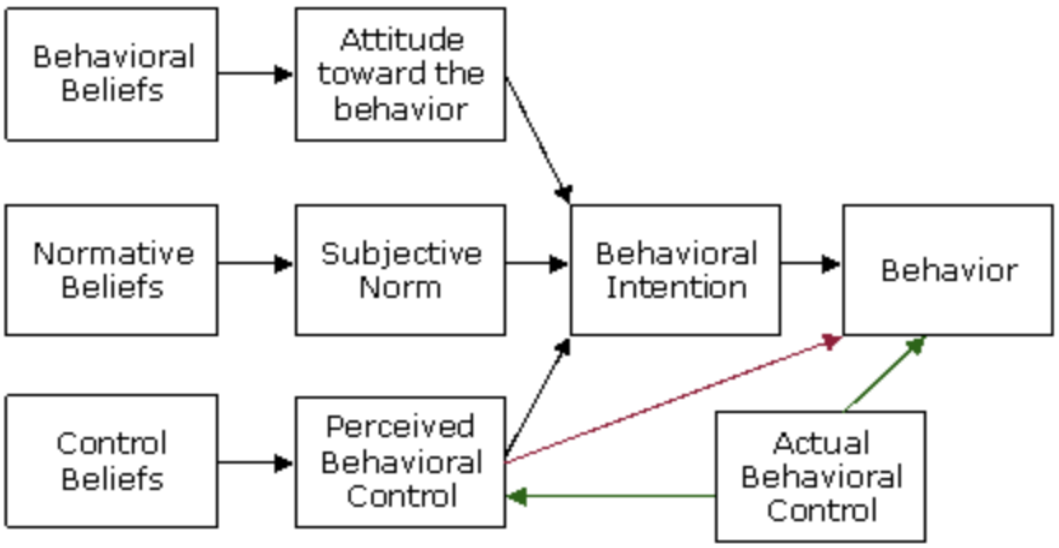
a) The intention is a precursor to behaviour

b) Perceived behavioural control reflects past experience as well as anticipated impediments and obstacles.

c) Perceived behavioural control has motivational implications for intentions.

d) Perceived behavioural control can influence behaviour indirectly, via intentions and at the same time can also be used to predict behaviour directly because it may be considered a partial substitute for a measure of control. A schematic representation of the theory of planned behaviour is shown below in Figure 1.

Figure 1. Schematic representation of the theory of planned behaviour (Adapted from Ajzen, 2006).



3.2 A critique of the Theory of Planned Behaviour

In terms of its scientific status, the TPB has been used to explain a variety of behaviour (Blue, 1995). Hobbis and Sutton (2005) criticized the theory of planned behaviour's intervention development based on salient beliefs. They argue that it is hard to adequately represent salient beliefs on which interventions may be grounded. Hobbis and Sutton (2005) contend that interventions based on modal salient beliefs, may not be effective, as many individuals in a group may be presented with information designed to change beliefs that are not relevant to them. Therefore, Hobbis and Sutton (2005) proposed an alternative approach, which elicits beliefs specific to each individual, which would result in individually tailored interventions based on the content of each individual's idiosyncratic set of salient beliefs.

In a review of a group of studies utilizing the theory of planned behaviour, Godkin and Kok (1998) concluded that the theory performed well across several types of behaviour in predicting intention to perform a behaviour.

In another review focusing on the usefulness of the TPB in predicting condom use, Bennett and Bozionelos (2000) concluded that the theory has proven utility in predicting both intentions to use condoms and actual condoms use. The researchers' concluded that attitudes are more powerfully predictive than social norms, and efficacy judgment is influenced by other perceived control factors.

Mausbach, Semple, Strathdee, and Patterson (2007) did a study that tested a modified version of the theory of planned behaviour (TPB) for predicting both safer sex intentions and actual engagement in safer sex in a sample of HIV-negative heterosexual methamphetamine users. Their findings supported the model, by indicating that positive attitudes toward condoms, greater expectations from peers to engage in safer sex behaviours, and more control over negotiating safer sex and using condoms all significantly predicted intention to use condoms during sex (Mausbach, Semple, Strathdee, & Patterson, 2007). These authors posit that the theory of planned behaviour has significant support in numerous populations and for a range of health behaviours, and it is probable that within-group factors may perhaps also contribute to one's intentions to engage in particular behaviours (Mausbach, Semple, Strathdee, & Patterson, 2007).

A study by Boldero, Moore, and Rosenthal (1992) examined the applicability of Ajzen and Madden's (1986) theory of planned behavior to condom use intentions and condom use behavior in specific contexts, including the type of relationship a person was in (i.e. steady or casual), alcohol and drugs intake, sexual arousal and concern about infection with AIDS and other STDs. In assessing the consistency of

intention, the intention was measured twice, the first measurement was performed prior to and independent of a sexual encounter (prior intention) and the second, immediately before a specific sexual encounter (intention in action) (Boldero et al., 1992). Findings from this study indicated that respondents had favourable beliefs towards condom use (Boldero et al., 1992). Health professionals, family and friends, in that order, were the significant others who mostly influenced normative beliefs (Boldero et al., 1992). The majority of respondents met the behavioural conditions of condom use in that they intended to use a condom prior to the sexual encounter, had a condom available, communicated with their sexual partners about the need to use a condom and actually used one (Boldero et al., 1992). This finding validates the link between intentions and actual behaviour (Boldero et al., 1992).

3.3 The Ecological Systems Theory

The Ecological Systems Theory developed by Urie Brofenbrenner (1977), also referred to as the development in context theory or the bio-ecological theory provides a conceptual framework for this review. This theory has widely been accepted within the social work profession than in other helping professions. The basic premise of this theory is that a person's development is influenced by the context in which they grow (Brofenbrenner, 1977). This means that individual's physical, social and cultural conditions interact in the process of mutual reciprocity and complementary exchanges of resource, where fundamental necessities are met, dynamic stability and exchange balance are achieved and dialectical change occurs (Brofenbrenner, 1977).

This theory argues that a well-functioning system produces exchange balance or positive reciprocal complementarity, in mutual need-meeting connections, among subsystems, and between the ecosystem and its environment (Brofenbrenner, 1977).

On the other hand, dysfunction in the system such as mental illness, physical illness, criminality, accompanied by social disruption, for example, high divorce rates, criminal behavior, and violence, come about as a result of a mismatch and lack of fit between the sub-systems and between the ecosystem and its environment (Siporin, 1980).

The goodness of fit and resource reciprocity between parallel characteristics of sub-systems frequently alluded to as the person-environment fit (P–E fit) in organisational psychology, is whereby the individual and environmental characteristics match (Kristof-Brown, Zimmerman, and Johnson, 2005). Where the person and the environment together predict human behaviour better than each of them does independently (Siporin, 1980).

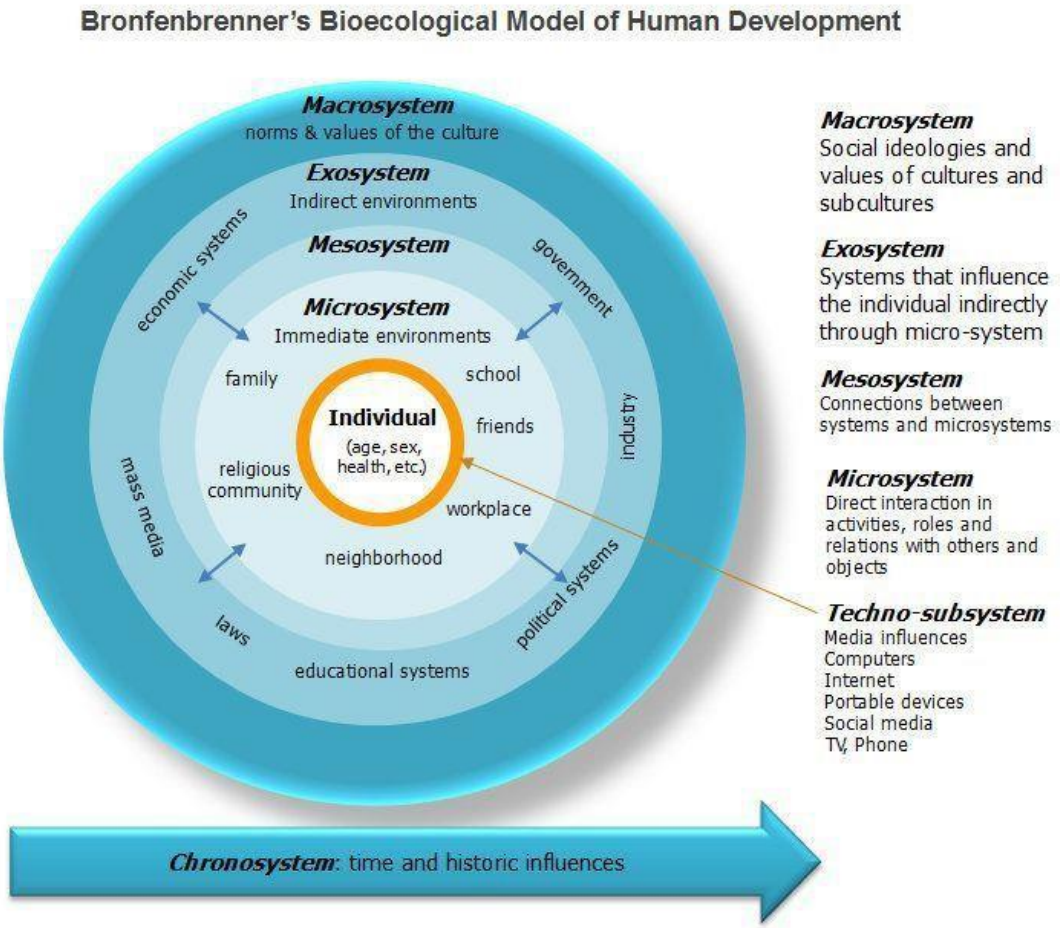
The ecological systems theory consists of five systems: (a) microsystem, (b) mezzo-system, (c) exosystem, (d) macrosystem and (e) the chronosystem (Bronfenbrenner, 1994). This framework amalgamates systems and developmental theories, stating that numerous kinds of environmental systems influence human development (Senser, 2017). The microsystem is characterized as the immediate surroundings of the individual such as family, school, culture, norms, values, churches or work (in the context of this study, for incarcerated youth offenders, this would, for example, include norms, values, fellow inmates). The mezzo-system is characterized as communities or neighbourhoods (for incarcerated youth offenders this may include a support group or rehabilitation/treatment group).

The exosystem is characterized as systems that indirectly affect a person (for incarcerated youth offenders, this might include, for instance, correctional centres environment and practitioner's practices). The macrosystem is characterized as a system, which guides and shapes governance on a global or national level. It refers to

the overarching institutional patterns and social models, for example, economic, social, educational, legal, and political systems (Arditti, 2005). Macrosystems are ideological outlines affecting development throughout other fundamental sub-systems (Arditti, 2005). Such macro systemic impacts are of extraordinary significance in considering the effect of imprisonment on offenders as it determines how offenders are dealt with in various settings (Arditti, 2005).

The chronosystem is the ecological framework within the context of history over the span of a lifetime (Bronfenbrenner, 1994). For the purpose of this systematic review, the ecological systems theory is demonstrated through the micro, mezzo, macro and chronosystem.

Figure 2. The Ecological/Bio-ecological Model of human development (Bronfenbrenner, 1977)



The social exchange model (refer to figure 3) is pertinent to a variety of settings, where the client might be an individual, a company, a family, a peer group, a community, or a welfare system (Siporin, 1980). Depending on the nature of the client, the situational milieu has a different character (Siporin, 1980).

The first principle of this model affirms that the adaptive fitness between subsystems requires synchronization among external relationships, such that the qualities of every unit are reciprocal, and the resource exchanges between them are in a state of exchange balance (Siporin, 1980).

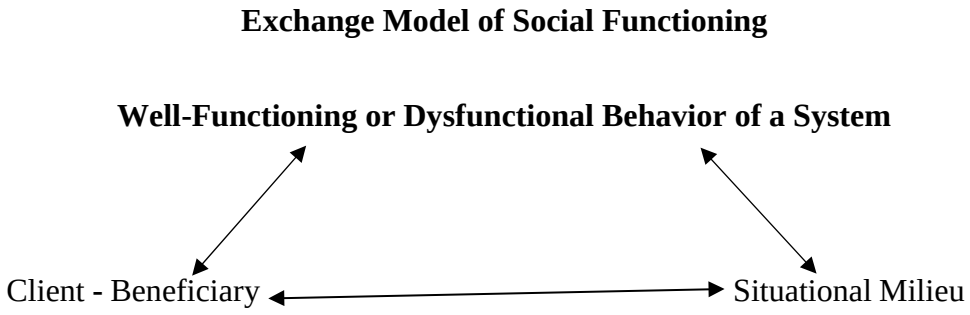
The second principle, states that all subsystem such as individual, family, association, or community must have access to and the use of sufficient and coordinated internal and external demands, so as to cope with life stresses, in a compelling, effective, fulfilling way, in order to achieve development (Siporin, 1980). Therefore, every subsystem requires sufficient and well-working, input-output, integrative linkages with different subsystems and within the larger environment, for satisfactory, equitable exchange of resources (Siporin, 1980). This means that an individual can work well in the event that he/she has developed capacities and competencies, and has access to the required resources such as support, resources, opportunities, and demands (Siporin, 1980).

Therefore, these two principles indicate that for optimum functioning, the sub-systems such as the person and environment are perceived as bound in reciprocal interdependence (Siporin, 1980). Where an individual's desire for turning into a successful specialist should be consistent with their abilities and resources, their commitment to the value of the profession, scholarly capability, having a positive meaning of the vocational circumstance as one that encourages an effective and fulfilling profession (Siporin, 1980). Additionally, a functional community requires

competence among its people, families, groups, and organisations, as well as sufficient social, institutional structures and adequate social arrangements from the city, government, and administrative legislative structures (Siporin, 1980). On the other hand, a dysfunctional community can be understood as lacking complementary interdependence, and an absence of satisfactory, impartial resource exchange between systems (Siporin, 1980).

The third principle of the ecological model expresses systemic change and change in the structure, components, and procedures of a system from the inherent dialectical forces expressed in the inconsistencies, contradictions, and clashes between internal and external attributes and resources (Siporin, 1980). This principle is referred to as the dialectical principle of change, where a well-functioning system is disrupted or not fully achieved due to changes that occur in life as people evolve. An ideal state of complementary exchange occurs when internal and external attributes and resources meet (Siporin, 1980).

Figure 3. The Ecological systems exchange model of social functioning (Siporin, 1980)



3.4 A critique of the Ecological Systems Theory

Critiques of the ecological systems theory have noted various limitations related to its application (Siporin, 1980). One of the limitations of the theory is its inability to manage abstract understanding, such as meanings, desires, and values (Grinker, 1975). Another noteworthy limitation presented by the theory is the assumption that systemic components are so interdependent to the point that impactful interventions should affect components of a system, in such a way that it has rippling, resounding effects that will fundamentally change the entire systemic structure (Siporin, 1980). This is an assumption by theorist that has not been verified.

Lastly, another ramification of the theory is the intended or unintended pressure on social work practitioners to see things big. Critiques argue that this grandiose type of generalist view puts pressure on social practitioners to be equally experts as social organizers, family therapists, community organizers, psychotherapists, etc. (Siporin, 1980). The aftereffect of this grandiose view is seen in the lack of competence and effective provision of essential social services that is shown by numerous mental health and social service practitioners (Siporin, 1980).

On the other hand, the ecological systems theory has noteworthy positive contributions. The ecological systems theory stresses how structures, such as school, work, family, welfare, law, have an impact on the conducive development and functioning of an individual (Siporin, 1980). It enables practitioners to look at the interaction between sub-systems that have contributed to the individual's state as opposed to just blaming the individual. For instance, the theory has allowed practitioners to identify that a "family plays a very significant role in the development of positive mental health and making a person psychologically resourceful and socially organized" (David, 1978 as cited in Senthil, Vidyarthi & Kiran, 2014: 32).

The ecological systems theory has encouraged practitioners to view things holistically and for them to draw from a larger perspective, a more unitary and all-inclusive unit of attention, for an all-encompassing and dynamic understanding of individuals and the socio-cultural-physical milieu (Siporin, 1980). This is owed to the fact that the ecological system theory embraces other theories (Grinker, 1975), and thus allows for the development of strategies that incorporate numerous perspectives as it looks at relationships in parts and whole as well as inputs and outputs (Broderick, 1971).

Social work is a societal instrument that serves individuals in their endeavours to keep up, reestablish and improve their individual and collective social functioning. With a theory that is congruent to the social work, perspective and purpose social workers are empowered (Siporin, 1980). The ecological systems theory is a particularly instrumental theory in social work practice as it has encouraged social workers to be theoretically and technically eclectic (Siporin, 1980). The theory allows social workers to incorporate various methods and techniques from behavioural and social system theories. Upon this base, social work is able to build and execute a range of helping approaches such as psychodynamic, cognitive-behavioural, interactional, humanistic-existentialist, and critical thinking (Siporin, 1980). With this theory, practitioners are able to identify gaps that exist such that there is a miss-fit between the person and the environment and thereafter work towards taking the necessary actions to accomplish optimal goodness of fit between the person and the environment (Siporin, 1980).

The ecological systems theory has enabled social work practitioners to assist individuals in shaping their life conditions and change both their perception and reality (Siporin, 1980). It has also allowed social workers to work with communities in developing themselves. Therefore, the ecological systems theory's contribution

outweighs its limitations (Siporin, 1980).

In summary, this theory is most appropriate as a foundation for this study as it focuses on the significance of connecting behavioural strategies of health promotion with efforts to reinforce environmental support structures within the larger community that are helpful for individual and collective well-being (Matarazzo, 1980). Moreover, it is best suited in light of the fact that behavioural change programs have largely concentrated on the individual while neglecting the environmental reinforcements of health and illness (Stokols, 1996).

3.5 Synthesis of the Theory of Planned Behaviour and the Ecological Systems Theory as an Explanation of Social Deviance and Mental Health in a Post-Apartheid Context

Consistent with the theory of planned behaviour, in this study, the focus was on determining the extent to which youth offender's attitudes, subjective norms and perceived behavioural predict the intention to recidivate. The vestiges and attitudes established in South Africa during the apartheid era have extended to post-apartheid South Africa. Through racialization, which confines and constructs different groups, usually through assigning negatively evaluated attributes such as 'criminality' or 'inferiority', the criminalization of black people came about. Where blacks received more attention from the police and were more likely to encounter the criminal justice system because of ascribed prejudiced characteristics of criminality. Where criminality and race work together and black youth signify criminality (Keith, 1993:243) and terms like crime and riot become racially loaded.

Sociodemographic variables such as race, social class and gender continue to play a role in influencing the dynamics of the superiority and inferiority dyad (Smiley & Fakunle, 2016). However, race remains the most significant sociodemographic distinction in South Africa. Similar to America, "the synonymy of Blackness with criminality is not a new phenomenon" in South Africa (Smiley & Fakunle, 2016:1). Historically, there has always been myths, stereotypes, and racist ideologies leading to the discrimination of black people that fueled racial divide and social issues that fuel violence in post-apartheid South Africa (Smiley & Fakunle, 2016). There is also the vulnerability of young people due to poor socialization, high levels of inequality, poverty, unemployment, social exclusion and marginalization. All these factors create a predisposition to crime and something needs to be done to prevent people from acting on these predispositions.

Historically, there were norms that suggested native people's cultures as childlike or mentally retarded and therefore needed to be controlled, as natives cannot take care of themselves (Dlamini, 1988 as cited in Dissel & Kollapen, 2002). Such prejudices play a role in post-apartheid South Africa and suggest certain inferiority towards black people. During apartheid, non-whites were forced to obey the criminalizing and violating laws of the era. However, post-apartheid South Africa has seen resistance from non-whites, which sometimes manifests itself through violence as they seek to redefine their existence.

Challenges of corruption in South Africa have also stirred the increases in crime. A report on corruption in Sub-Saharan Africa indicated that 75 million people pay bribes (Global Corruption Barometer, 2015). A corruption report on South Africa (2018) by GAN integrity indicates that about a quarter of South Africans (54 490 000) perceived most or all judges and magistrates as corrupt (GCB, 2015).

Another report on corruption in Africa by International transparency and GCB (2015) indicated that bribery affects more than one in five Africans and hurts the poor the most. This report further indicates that the police and magistrate courts had the highest rate of bribery and nearly half of South Africans perceive most or all police officers as corrupt (GCB, 2015). Such behaviours make it possible for some people to not take our authority figures seriously and rather enforce the perception that they would be able to execute a crime and get away with it since our figures of authority have made room for people to pay their way out of crime.

The Ecological system theory from a micro-level addresses the person's relationships with family, peers, and home (Siporin, 1980). For some imprisoned offenders, these relationships are strained, which eventually affects the youth offender's reintegration upon release. It also speaks to peer relationships that either accept and encourage or reproach criminal behaviour, which to some level has an impact on peer influence that may help rehabilitate an offender or send them back to prison.

The Ecological system from the mezzo level addresses the community that the individual is surrounded by, for example, community networks, school, church and health services (Siporin, 1980). The mezzo level also has an impact on the community reintegration of released offenders as it depends on whether or not the community stigmatizes, marginalizes and excludes youth offenders because of their past criminal behaviour or accepts them back into the community (Siporin, 1980). Community norms around criminal behaviour also have an impact on offender rehabilitation.

The Ecological systems theory from a macro perspective addresses the relationship between an individual and "the system", or how an individual is affected by public policies, justice laws, government laws, economic systems, and social conditions (Siporin, 1980). Society has a larger and more intense lens for black crime and thus is more likely to respond and respond aggressively to black crime. Where laws tremendously influence imprisoned offenders in a variety of ways. In our context as previously indicated, our laws directly or indirectly disadvantage offenders to a fair trial through racial biases, assuming a state of equilibrium in a country that has so much inequality, by placing, an insurmountable responsibility as far as proving mental health is concerned. Other factors range from visitation hours, access to health care services, and access to basic needs. In addition to social stigma, laws and systems hinder offenders from effectively obtaining employment, which hinders them from obtaining fundamental needs, such as housing, food, clothes thus impeding reintegration (Siporin, 1980) which has an impact on rehabilitation.

From the chronosystem perspective, South Africa has a history of negative racialization. The negative racialization disadvantaged many non-whites and predominantly blacks to access resources (Siporin, 1980). This has had rippling effects leading to increased pressure to survive at the basic level of needs, which leads to stress, which leads to increased risk of anxiety, mood disorders, trauma and psychosis which in turn are risk factors for deviance (Siporin, 1980). Traditional explanations of black people’s criminal conduct exacerbate this problem in that they posit that context does not matter and all that matters are the internal calculus of the criminal about whether they will be caught or punished (Siporin, 1980). Thus leading to the criminalization of blackness or the criminalization of mental illness. All these systems are intertwined and have an impact on the rehabilitation of offenders which manifests itself through recidivism in South Africa.

3.6 Summary

This chapter presented a detailed discussion and critique of the Ecological Systems Theory and the Theory of Planned Behaviour. The subsequent chapter discusses various aspects of the methodology that was adopted in this study.

CHAPTER 4

METHODOLOGY

This chapter presents the methods and procedures used in conducting this study. This study was conducted to investigate the impact of mental health on recidivism among youth offenders and the role of substance use. This chapter discusses the research design, hypotheses, population and sampling, data collection approach and instrument (i.e. measures), data management and analysis, ethical considerations and the last section is the delimitations of the study.

4.1 Research design

In this study, a cross-sectional quantitative exploratory research design was used to examine the impact of mental health on recidivism among incarcerated youth offenders in South Africa and the role of substance use. The purpose of quantitative exploratory research is to discover and develop methods that can be employed in future research studies (Babbie, 2014). It is instrumental in comprehending new factors that have not yet been studied (Babbie, 2014). Where the goal is to determine relationships between persistent variables (i.e.an independent variable and a dependent or outcome variable) that have not yet been studied extensively in South Africa among this population.

Quantitative research attempts to recognise and isolate specific variables contained within the framework of the study, and seek correlation, relationships, and attempt to control the environment in which the data is collected to avoid the risk of variables, other than the one being studied, accounting for the relationships identified

(Babbie, 2010). This design is best suited for this study as it allowed for a broad study, involving a greater number of subjects that are likely to yield a study sample that increases the potential for generalization of the results. Additionally, the structure of this research paradigm has not changed for centuries. It is standard across scientific fields and disciplines which enables research replication, analysis and comparison with similar studies (Babbie, 2010). Furthermore, this design was best suited for this research as quantitative research eliminates researcher bias in data collection and analysis.

4.2 Model 1 hypotheses

Hypotheses 1

There is a statistically significant rate of recidivism among incarcerated youth offenders

Hypothesis 2

There is a statistically significant prevalence of mental illness among incarcerated youth offenders

Hypothesis 3

There is a statistically significant relationship between mental illness and recidivism.

Hypothesis 4

There is a statistically significant interaction between mental health and appetitive aggression resulting in recidivism.

Hypotheses 5

There is a statistically significant relationship between substance use and recidivism.

Hypotheses 6

There is a statistically significant interaction between mental health and substance use resulting in recidivism.

Hypotheses 7

There is a statistically significant interaction between substance use and appetitive aggression resulting in recidivism.

4.3 Variables

Independent variables

Mental health: this study particularly measured depression and anxiety using the Hopkins Symptoms Checklist which is a Likert scale ranging from not at all with a weight of 1, a little with a weight of 2, quite a bit with a weight of 3 and extremely was assigned a weight of 4. High scores indicated high depression and anxiety symptomology.

Mediating variables

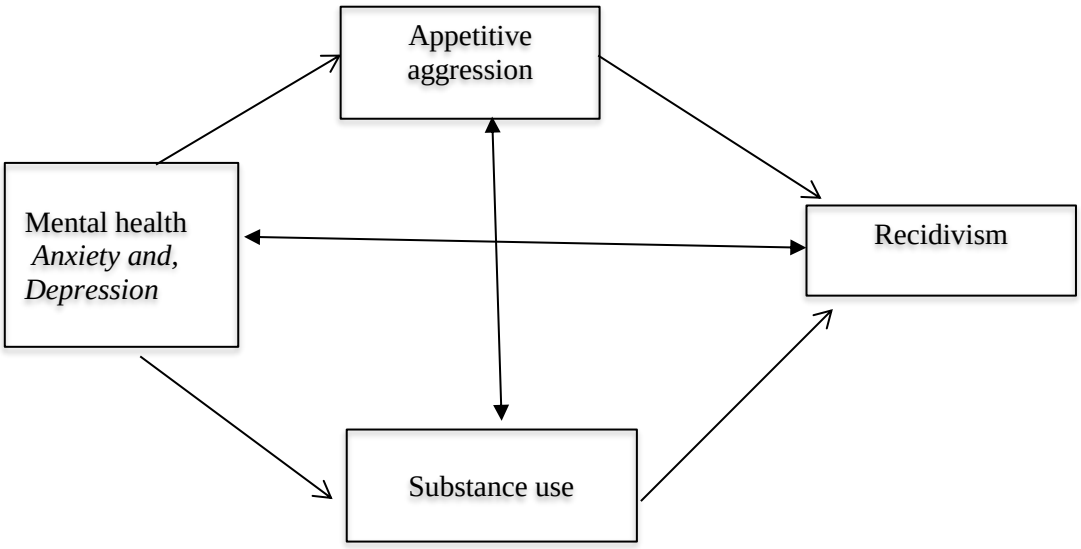
Appetitive aggression: measured the attraction to crime using an adapted version of the appetitive aggression scale. The adapted appetitive aggression scale is a Likert scale ranging from totally disagree with a weight of 0, disagree with a weight of 1, neither agree nor disagree with a weight of 2, agree with a weight of 3 and totally agree weighted 4. High scores indicated high appetitive aggression symptomology.

Substance use: is measured using the CAR, Relax, Alone, Forget, Family or Friends, Trouble (CRAFFT) measure of substance use. Substance use within the past 6 months of the data collection period was measured among participants where high scores indicated substance use.

Dependent variable

Recidivism: which refers to repeat offence and re-arrest was measured by the number of times offenders have been sentenced (arrested) to a correctional centre.

Figure 4: A hypothesized model of the central study variables



As shown in figure 4. Characteristics of mental health illness influence recidivism. The characteristics of mental health issues influence the characteristics of appetitive aggression. The characteristics of appetitive aggression influence recidivism. Similarly, the characteristics of mental health issues influence the characteristics of substance use. The characteristics of substance use influence recidivism. Additionally, the characteristics of appetitive aggression influence substance use and similarly the characteristics of appetitive aggression influence the characteristics of substance use. The characteristics of mental health issues coupled with the characteristics of substance use influence recidivism. Likewise, the characteristics of mental health issues coupled with appetitive aggression influence recidivism.

The above model and explanation is shown below using the following equations, where MHAD refers to Mental Health i.e Anxiety and Depression, R is for Recidivism, AA is fo Appetitive Aggression and SU is for Substance Use.

1. MHAD >R
2. MHAD >AA
3. AA > R
4. MHAD + AA > R
5. MHAD >SU
6. SU > R
7. MHAD + SU > R
8. SU+AA >R

4.4 Model 2 hypothesis

Hypotheses 1

There is a statistically significant relationship between attitude and recidivism.

Hypotheses 2

There is a statistically significant relationship between subjective norms and recidivism.

Hypotheses 3

There is a statistically significant relationship between perceived behavioural control and recidivism.

Hypotheses 4

There is a statistically significant interaction between attitudes, subjective norms, and perceived behavioural control resulting in greater intention to recidivate.

4.5 Variables

Independent Variables

Attitude: Measured is using an adapted version of the measure of criminal attitude and associates (MCAA), which is Likert scale ranging from disagree weighted at 1, undecided with a weighting of 2, agree weighted at 3 and totally agree weighted at 4. A high score indicates high pro-criminal attitude.

Subjective norm: The adapted version of the measure of criminal attitude and associates (MCAA) was used to assess subjective norms to criminal behaviour. The adapted MCAA scale is Likert scale ranging from disagree weighted at 1, undecided with a weighting of 2, agree weighted at 3 and totally agree weighted at 4. High score indicted high approval for criminal behaviour.

Perceived behavioural control: The adapted version of the measure of criminal

attitude and associates (MCAA) was used to assess perceived control (efficacy) over executing criminal behaviour. The adapted MCAA scale is Likert scale ranging from disagree weighted at 1, undecided with a weighting of 2, agree weighted at 3 and totally agree weighted at 4. High score indicted high perceived control for executing future criminal behaviour.

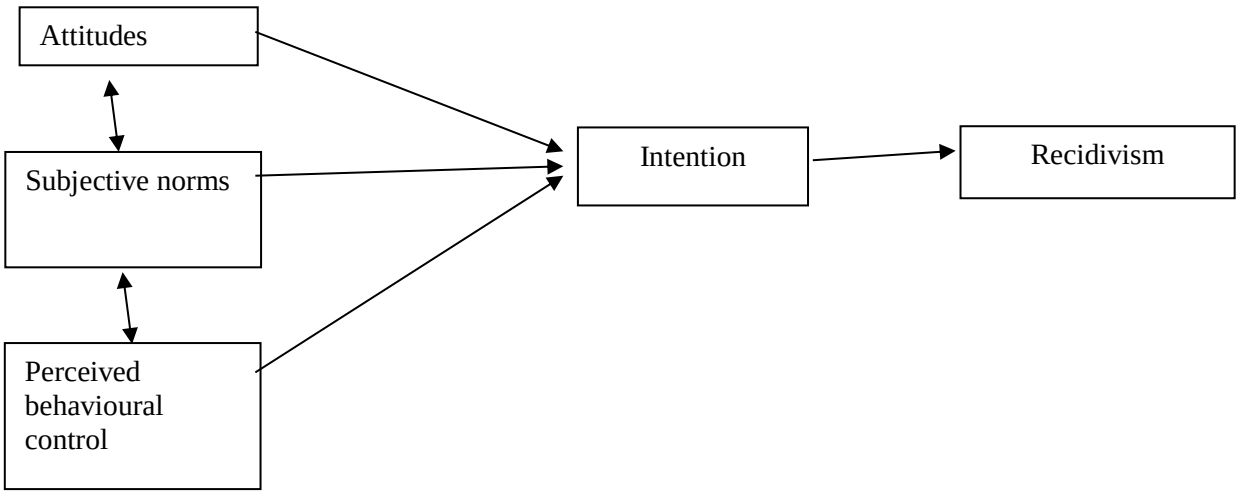
Mediating variable

Intention: intention to recidivate was measured directly, by asking participants whether or not they intend to recidivate.

Dependent variable

Recidivism: which refers to repeat offense and re-arrest was measured by the number of times offenders have been sentenced (arrested) to a correctional center.

Figure 5: A hypothesized Model of the Theory of Planned Behaviour



As shown in figure 5, pro-criminal attitudes of offenders influences recidivism. Likewise, subjective norms or associates approval influences recidivism and lastly perceived control in executing criminal behaviour without getting caught influences

recidivism. All these variables are hypothesized to be mediated by the intention to recidivate.

The above model and explanation is shown below using the following equation, where A stands for Attitude, SN is for Subjetive Norm, PBC is for Perceived Behavioural Control, I is for Intention and R reprents Recidivism.

1. A + SN + PBC → I →R

4.6 Measures

This research utilized 4 measures. The Hopkins Symptoms checklist, an adapted version of the appetitive aggression scale (AAS), the CRAFFT *(Car, Relax, Alone, Forget, Friends, Trouble)* substance use measure, and an adapted version of the measure of criminal attitudes and associates (MCAA) scale. All scales included in the questionnaire are previously developed and are reliable. In this study, three practitioners (psychologist, social worker, probation officer) within the department of correctional services were consulted with regards to the questionnaire prior to its finalization. Thereafter, it was piloted with 30 offenders who would not be part of the sample before it was finalized. With the pilot sample, all scales were reliable. The Cronbach's alpha for the HSCL was .90, for the adapted appetitive aggression scale it was .80, for the CRAFFT scale, it was .73, and finally, for the adapted MCAA scale, it was .76.

Hopkins symptoms checklist (HSCL-25) measures depression and anxiety disorder. It was originally developed by Parloff, Kelman, and Frank at Johns Hopkins University in 1954 for use in primary care settings. There are several versions of the

HSCL that include 25 to 90 items. The HSCL-25 has been used by various researchers with various populations to assess mental health indicators. Researchers have found the HSCL-25 to be a simple, reliable and effective screening method for anxiety and depression (Kleijn, Hovens, & Rodenburg, 2001). The HSCL-25 consists of two parts: Part 1 has 10 items for anxiety symptoms; Part 2 has 15 items for depression symptoms as defined by the Diagnostic and Statistical Manual (DSM-IV-R) of the American Psychiatric Association (American Psychiatric Association (APA), 2000). The scale for each question includes four response categories ("Not at all", "A little", "Quite a bit", and "Extremely", rated 1 to 4, respectively). The rationale for measuring mental health is anchored on literature that suggests that mental illness has an influence on offending and re-offending behaviour. This analysis was not only necessary to measure overall mental health but to also identify which mental health issue can be correlated with recidivism.

An adapted version of the Appetitive Aggression Scale (AAS) (Weierstall & Elbert, 2011). The original version of this scale measures attraction to violence, in this study it is coined as the attraction to crime and not specifically violence. The original scale has been administered to more than 2,000 participants, who are perpetrators of severe violence, in different regions (e.g., Uganda, Rwanda, Colombia, and South Africa). The scale consists of 15 questions such as, ("Do you like to listen to other people telling you stories of how they killed others?"). Addiction-specific questions that cover the reward-driven aspect of appetitive aggression, including questions such as ("Once fighting has started, do you get carried away by the violence?") and questions about the desire to cause harm (''During fighting does the desire to hunt or kill take control of you?"). For every item, participants were asked to respond to the statement dealing with their propensity toward crime using a 5-point Likert scale, ranging from (0-totally disagree, 1-

disagree, 2 - neither agree nor disagree, 3 - agree, and 4 - totally agree). An analysis of this information was necessary so as to identify if the attraction to crime can be correlated with recidivism.

CRAFFT scale. The CRAFFT Screening Tool was developed by John R Knight and colleagues at the Center for Adolescent Substance Abuse Research (CeASAR) at Boston Children's Hospital. The CRAFFT measure has predominantly been used to screen for alcohol and drug use among adolescents, however, its use is not limited to adolescents. The CRAFFT measure screens for problematic alcohol and drug use disorder simultaneously. It includes two parts. The first part has three items that evaluate whether an offender has used alcohol, cannabis, and other substances such as whoonga (current prominent drug in Durban). The second part of the CRAFFT has six items. The questions in the CRAFFT scales asks whether or not an offender has ridden in a "car" driven by someone (including self), while high on alcohol or other substances have used alcohol or other substances to "relax" or feel better about her/himself, have used alcohol or other substances while by her/himself "alone"; and have "forgotten" to complete a task while using alcohol or other substances.

Other items on the CRAFFT include whether "family or friends" ever told the offender that she/he should cut down on alcohol or other substance use and whether the offender has had "trouble" with the law while using alcohol or other substances. The answer choices for these questions are "Yes" (1 point) or "No" (0 point). For all items, the greater value indicates problematic alcohol or substance use. The use of this measure is anchored on theoretical models that suggest that substance use plays a significant role in offending and re-offending behaviour. Additionally, these models suggest that substance use among individuals who already live with mental health disorders makes them even more prone to recidivate.

An adapted version of the Measure of Criminal Attitudes and Associates (MCAA) (Mills & Kroner, 1999). In the original scale, the four elements measured with the scale are violence, antisocial intent, associates, and entitlement. In this study, the violence and entitlement sections are combined and conceptualized as attitude. It is also important to note that one question from the violence section and one question from the entitlement section were removed. Antisocial intent is conceptualized as perceived behavioural control, and associates is conceptualized as subjective norms. None of the remaining question from the original scale have been modified.

Part A of this scale quantitatively assesses criminal attitude using 22 items of the tolerance toward violence (e.g. "It's all right to fight someone if they stole from you.") and entitlement (e.g. "Taking what is owed you is not really stealing" and "A lack of money should not stop you from getting what you want"). Part B, measures perceived behavioural control using 12 items of the antisocial intent (e.g. "I could see myself lying to the police "and "I would run a scam if I could get away with it"). Part C, assesses subjective norms of respondents using 10 items of the criminal associates (e.g. "I always feel welcome around criminal friends, I have friends who have been to jail, I have a lot in common with people who break the law, and I have committed a crime with friends"). This scale is a Likert-type scale with four response options ranging from disagree, undecided, agree, and agree completely (coded as 1, 2, 3, and 4, respectively). The theory of planned behaviour has not been used in South Africa to predict recidivism. Therefore, the use of this scale was necessary so as to identify if attitudes, subjective norms and perceived behavioural control can be correlated with recidivism and whether they can also predict recidivism.

4.7 Population and Sampling

Population in research refers to the totality of persons, groups, and organisation units from which a sample is drawn in order to study a particular research problem (Babbie & Mouton, 2009). The sample population for this study is youth offenders incarcerated at the Durban Maximum Correctional Services in Westville, KwaZulu-Natal. It involved youth offenders aged 18-35 who do not have a known psychiatric diagnosis. It included both first time and repeat offenders. The sample population involved male and female youth offenders incarcerated for different types of crimes.

The purpose of sampling is to gain information about the population by using a sample (Babbie, 2014). Sampling refers to the process of selecting participants who will provide data that is required for the purpose of the research (Babbie & Mouton, 2009). A sample consists of individuals, items or events selected from a larger group referred to as a population (Gay & Airasian, 2000). The sampling procedure employed in this study was a probability sample, where a multi-stage cluster sampling method was applied. The probability sampling procedure allowed each element of the population an equal chance of being selected to be part of the sample (Babbie, 2014). Multi-stage cluster sampling refers to the combination of sampling techniques. Where a researcher goes through different phases as they sample. In this study, cluster sampling and systematic sampling were applied. Where the clusters included offenders from Mediam B and the female correctional centre, which both have sections within those clusters. Cluster sampling refers to randomly selecting participants from clusters that the researcher develops or clusters that are already naturally in existence (Babbie, 2014).

Additionally, systematic sampling refers to selecting participants from an ordered sample frame (Babbie, 2014). This method starts with selecting an element from the list at random and then select every Kth element from the list. The Kth element is calculated by dividing the population size by the minimum required sample size.

Sample size determination

Barlett, Kotrlik and Higgins (2001) posit that sample size determination is the process of selecting the number of participants to include in a statistical sample. That sample size is a significant feature of any empirical study in which the goal is to make inferences about a population from a sample. Sample size determination is a very significant issue because samples that are too large may waste time, resources and money, while samples that are too small may lead to inaccurate results (Barlett, Kotrlik & Higgins, 2001). Practically, the sample size used in a study is determined based on the expense of data collection, and the need to have sufficient statistical power (Barlett, Kotrlik & Higgins, 2001).

The sampling method unfolded in these steps:

Step 1- the population was identified from pre-existing clusters within the prison, which included sub-sections within medium B, the female prison and the juvenile correctional centre. The researcher numbered these clusters as 1-14. The total population from these clusters was 2775.

Step 2- The researcher isolated the age group eligible to participate within each cluster, which was individuals between the ages 18-35. As a result, 1435 individuals were identified in medium B, 47 in the juvenile prison and 132 in the female prison, which totaled 1614 eligible youth offenders to participate.

Step 3: to calculate the minimum sample size for this study, the standard deviation and margin of error were first calculated. A margin of error tells us how many percentage points the results will differ from the real population value (Barlett, Kotrlik & Higgins, 2001). When sample data is already collected and the sample mean $\bar{x}$ is calculated, that sample mean is typically different from the population mean μ. This difference between the sample and population means can be thought of as an error. The margin of error E is the maximum difference between the observed sample mean $\bar{x}$ and the true value of the population mean μ (Barlett, Kotrlik & Higgins, 2001).

$$E = z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$$

Where:

$z_{\alpha/2}$ is known as the critical value, the positive z value that is at the vertical boundary for the area of $\alpha/2$ in the right tail of the standard normal distribution.

σ is the population standard deviation.

n is the sample size.

$$E = z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$$

=210 774.35/14

=15 055.31

=√15 055.31

=122.7 (Standard deviation)

$$E = z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$$

= (1.96) (122.7/√314)

= (1.96) (6.9243)

=13.5 (margin of error)

$$n = \left[\frac{z_{\alpha/2}\sigma}{E}\right]^2$$

= $(1.96 \times 122.7/13.5)^2$

=3.84 x 15 055.29/182.25

=3.84 x 82.60

=317 (minimum sample size required)

OR

$$E = z_{\alpha/2} \cdot \frac{\sigma}{\sqrt{n}} \qquad \sqrt{}$$

= (1.96) (115.28/ 314)

= (1.96) (6.5056)

=12.7 (margin error)

$$n = \left[\frac{z_{\alpha/2}\sigma}{E} \right]^2$$

$= (1.96) (115.2/12.7)^2$

$=3.84 \times 13\ 271/161.2$

$=3.84 \times 82.3$

=316 (minimum sample size required)

Step 4- After determining the minimum sample size required a systematic technique was employed to determine the Kth term by diving the total population eligible to participate by the minimum sample size required, where the researcher oversampled the minimum sample size required totaling an even value of 400.

K = N/n where N is the population size and, n is the desired sample size.

K = 1614/400 = 4.0

Step 5- from cluster 1 to 14, every 4th person was systematically selected to participate from each cluster, which totaled 424 youth offenders selected to participate.

This study had a total of 317 youth offenders who participated in the study. However, through the process of data cleaning some entries had to be removed due to incomplete, incongruent data, or no longer fit the age criteria, which left the research with 280 usable entries.

Utilizing the multistage sampling or multistage (cluster) sampling was best fitting for this study because offenders are already grouped into clusters and stationed at different sections of the correctional based on different criteria's such as nature of the offence, gender, age etc. Additionally, systematic sampling ensured that each element within each cluster had an equal chance of being selected to participate because the correctional facility population is large; therefore, it was important to

select participants from different ward within the centre to get a representative sample. Additionally, the procedure was best suited because youth offenders are in a confined environment, which makes them vulnerable to coercion, random selection allowed for voluntary participation.

4.8 Data collection approach

The research design influences the methodology; therefore, this study made use of tools suitable for quantitative research methods to data collection. As such, a self-administered structured questionnaire titled "An investigation of the relationship between mental health and recidivism among incarcerated youth offenders: The role of substance use" was used to collect data. In cases where participants could not read or write, one-on-one interviews were held with the researcher. The researcher randomly selected participants and gave the list to officials within the correctional facility who communicated the request to participate in the study to the youth offenders. All data was collected at the Durban maximum correctional service. The researcher clearly explained the purpose of the study to the youth offenders and clarified that participating in the study will have no bearing or influence on the case they are incarcerated for (for example, influence bail, parole). All participants were required to sign the informed consent form prior to completing the questionnaire.

Instrumentation.

The final instrument consisted of six sections. The first section solicited participant's socio-demographic information such as age, sex, population group marital status, level of education etc. Section 2, measured the history of incarceration. It asked questions pertaining to whether an offender is a first time or repeat offender, the age of first arrest, the number of times arrested, crime sentenced for, duration of sentence and

intention to recidivate. The rationale for questions in section 1 and section 2 was anchored on the theoretical grounds that some of these factors have an impact on people's standard of living, which may make them susceptible to engaging in criminal behaviour and ultimately recidivism. Section 3, measured depression and anxiety using the Hopkins symptoms checklist; Section 4, measured youth offenders' appetitive aggression using an adapted version of the appetitive aggression scale; Section 5, measured substance use within the past 6 months among participants using the CRAFFT scale (Car, Relax, Alone, Forget, Friends, Trouble).

Section 6, measured participant's pro-criminal attitude, subjective norms and perceived behavioural control using an adapted version of the Measure of Criminal Attitudes and Associates scale (MCAA). The questionnaire took approximately 25-45 minutes to complete depending on the person's ability to read and comprehend questions. All sections of the questionnaire were translated into Zulu as the majority of the population in KZN is Zulu. The questionnaire was then backtranslated from Zulu to English. This translation was necessary in order to mitigate challenges of English language proficiency. It ensured that participants understood the questions in their mother tongue language. The instrument was piloted (See appendix A).

4.9 Reliability Analysis

Reliability analysis refers to assessing the accuracy of the measurement used to collect data in research. In order for the results from a study to be considered valid, the measuring instrument must first be reliable (Babbie & Rubin, 2010). It measures the proportion of the "accurate" variance to the total of the obtained variance of the data. It has to do with the amount of random error in a measurement. The more reliable the measure, the less random errors it will have (Babbie & Rubin, 2010). At the core of reliability is the idea of replicability or repeatability of results or observations (Joppe, 2000).

The Cronbach's Alpha is considered as a measure of scale reliability and can be described as a function of the number of test items and the average inter-correlation among the items (Babbie & Rubin, 2010). It is a measure of internal consistency, which refers to how closely related a set of items are as a group (Babbie & Rubin, 2010). Kirk and Miller (1986) identify three types of reliability referred to in quantitative research, which relate to (1) the degree to which a measurement, given repeatedly, remains the same (2) the stability of a measurement over time; and (3) the similarity of measurements within a given time period.

In this research, reliability analysis with the Cronbach's Alpha model was conducted for all scales. The Hopkins symptoms checklist (HSCL) Cronbach's alpha on standardized items is .920, the Cronbach's alpha for the anxiety section of the HSCL is .861 and .881 for the depression section. The Cronbach's alpha for the adapted version of the appetitive aggression scale is .803, the Cronbach's alpha for the substance use measure, CRAFFT is .825, and finally, the Cronbach's alpha for the adapted measure of criminal attitude and association (MCAA) is .870.

The Cronbach's alpha for the MCAA sub-sections are .811 for the attitude section, .723 for the perceived behavioural control section and .703 for the subjective norms section (See Table 1 below). In order to ascertain the internal consistency among these scale items, additional Cronbach's alpha "if deleted" statistics were obtained (see Tables 1.1.1 to 1.4.3). As indicated in the last column of each table, the efficiencies were consistent. Therefore, all the scale items are consistent with a high level of reliability.

Table 1. Reliability coefficients of the measures

Name of the measure	Number of items	Cronbach's Alpha
Hopkins symptoms checklist (HSCL)	25	.920
Hopkins symptoms checklist measure-Anxiety disorder section	10	.861
Hopkins symptoms checklist measure- Depression disorder section	15	.881
An adapted version of the Appetitive Aggression Scale (AAS)	15	.803
CRAFFT Substance use measure	9	.825
An adapted version of the Measure of Criminal Attitude and Association (MCAA)	43	.870
An adapted version of the Measure of Criminal Attitude and Association- Attitude section	22	.811
An adapted version of the Measure of Criminal Attitude and Association- Perceived Behavioural Control section	12	.723
An adapted version of the Measure of Criminal Attitude and Association- Subjective Norms section	9	.703

Table 1.1. Reliability analysis item of the Hopkins symptoms checklist (HSCL)

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Suddenly scared for no reason	50.5094	211.568	.545	.917
Feeling fearful	50.3145	209.976	.555	.917
Faintness, dizziness or weakness	50.6478	212.040	.522	.918
Nervousness or shakiness inside	50.5535	209.071	.624	.916
Heart pounding or racing	50.6226	213.097	.515	.918
Trembling	50.7673	212.851	.547	.917
Feeling tense or keyed up	50.5597	211.577	.557	.917
Headaches	50.3082	216.278	.327	.921
Feeling lonely	49.7044	207.526	.610	.916
Thoughts of ending your life	50.8302	210.737	.563	.917
Feeling of being trapped or caught	49.8491	206.281	.595	.916
Worrying too much about things	49.2704	208.667	.624	.916
Feeling no interest in things	50.3648	211.005	.530	.917
Feeling everything is an effort	49.8742	206.490	.626	.916
Feelings of worthlessness, feeling like a failure	50.0503	205.618	.622	.916
Spells of terror or panic for no Reason	50.5346	209.263	.612	.916
Feeling restless, can’t sit still	50.2767	208.227	.601	.916
Feeling low in energy, slowed Down	50.1258	209.490	.558	.917
Blaming yourself for things	49.0755	215.678	.401	.919
Crying easily	50.5975	212.103	.518	.918
Loss of sexual interest or pleasure	50.5283	220.377	.202	.923
Poor appetite/Overeating	50.2893	215.549	.402	.919
Difficulty falling sleep or staying Asleep	50.1572	207.057	.573	.917
Feeling hopeless about the future	50.2075	206.305	.609	.916
Feeling sad	49.8302	207.433	.644	.915

Table 1.1.1. Reliability analysis item of the Anxiety section on the HSCL

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Suddenly scared for no reason	16.5631	35.311	.612	.842
Feeling fearful	16.3544	34.396	.628	.841
Faintness, dizziness or weakness	16.6748	35.684	.567	.846
Nervousness or shakiness inside	16.6068	34.806	.657	.839
Heart pounding or racing	16.6117	35.234	.607	.843
Trembling	16.7913	36.585	.540	.848
Feeling tense or keyed up	16.6359	36.681	.514	.850
Headaches	16.3981	38.309	.295	.870
Spells of terror or panic for no reason	16.6068	34.737	.655	.839
Feeling restless, can’t sit still	16.3398	34.421	.625	.841

Table 1.1. 2. Reliability analysis item of the Depression section on the HSCL

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Feeling low in energy, slowed down	32.6684	85.651	.513	.876
Blaming yourself for things	31.6263	89.759	.375	.882
Crying easily	33.1737	86.853	.490	.877
Loss of sexual interest or pleasure	33.1158	90.674	.255	.887
Poor appetite/Overeating	32.8632	89.822	.356	.882
Difficulty falling sleep or staying asleep	32.7158	83.633	.557	.874
Feeling hopeless about the future	32.7526	82.314	.624	.871
Feeling sad	32.3474	82.979	.680	.869
Feeling lonely	32.2421	82.756	.666	.870
Thoughts of ending your life	33.4368	86.575	.519	.876
Feeling of being trapped or caught	32.4632	83.097	.587	.873
Worrying too much about things	31.8526	85.068	.618	.872
Feeling no interest in things	32.9474	86.040	.508	.877
Feeling everything is an effort	32.3789	82.205	.674	.869
Feelings of worthlessness, feeling like a failure	32.6053	81.468	.677	.869
Feeling sad	32.3474	82.979	.680	.869

Table 1.2. Reliability analysis item of the Adapted version of the Appetitive aggression scale

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Do you like to listen to other people telling you stories of how they committed crime	11.4137	68.058	.281	.800
Does the challenge of committing crime under difficult circumstances make the crime more pleasurable for you in comparison to when the circumstances are easier	12.1084	69.460	.366	.790
Is it exciting for you if you make a person really suffer	12.4217	71.543	.278	.796
Do you feel powerful when you go to commit a crime	11.7028	63.274	.547	.775
Is it fun to prepare yourself for going to commit a crime	12.0201	65.923	.513	.779
During committing a crime does the desire to hurt or kill take control of you	12.2129	69.821	.336	.792
Do you enjoy inciting your fellows to commit crime	12.4337	69.795	.468	.786
Is defeating another person more fun for you, when you see them hurt	12.3133	69.893	.398	.789
Once committing a crime has started, do you get carried away by it	11.5422	63.411	.531	.777
Have you harm others, just because you wanted to, without having a reason	11.7952	69.293	.264	.799
Once you got used to committing crime, did you want to commit more and more crime	11.8273	63.063	.563	.774
Do you know what it is like to feel the hunger/thirst to commit a crime	11.6506	63.906	.501	.779
Is committing crime the only thing you want to do in your life	12.5261	71.742	.352	.792
Can committing crime be sexually arousing for you	12.1928	69.197	.359	.791
When you commit crime, do you stop caring about the possibility that you could get killed	11.3092	64.997	.419	.787

Table 1.3. Reliability analysis item of the CRAFFT measure

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Drink any alcohol (more than a few sips)	4.1126	6.752	.350	.829
Smoke any marijuana or woonga	4.0586	6.508	.433	.821
Use anything else to get high	4.1171	6.638	.405	.823
Have you ever ridden in a CAR driven by someone (including yourself) who was “high” or had been using alcohol or drugs	3.8333	6.176	.549	.807
Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in	3.8604	5.994	.627	.798
Do you ever use alcohol or drugs while you are by yourself, or ALONE	3.8468	5.967	.641	.796
Do you ever FORGET things you did while using alcohol or Drugs	3.9144	6.187	.538	.809
Does your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use	3.6757	6.392	.521	.811
Have you ever gotten into TROUBLE while you were using alcohol or drugs	3.7523	5.898	.708	.788

Table 1. 4. Reliability analysis item of the Adapted version of the Measure of Criminal attitude and Associates (MCAA) scale

Questions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
It's understandable to hit someone who insults you	85.8970	269.325	.439	.858
There is nothing wrong with beating up a child molester	85.6485	266.266	.425	.858
Sometimes you have to fight to keep your self-respect	85.9212	266.354	.486	.857
Someone who makes you very angry deserves to be hit	86.2364	270.730	.444	.858
People who get beat up usually had it coming	86.3273	273.624	.377	.859
It's alright to fight someone if they stole from you	86.1455	269.881	.422	.858
It's not wrong to hit someone who puts you down	86.1030	269.569	.452	.858
It's not wrong to fight to save face	86.1152	268.920	.468	.857
Someone who makes you really angry shouldn't complain if they get hit	85.9636	270.865	.405	.859
There is nothing wrong with beating up someone who asks for it	86.2667	272.989	.375	.859
It is reasonable to fight someone who cheated on you	86.0909	271.242	.384	.859
Stealing to survive is understandable	86.1879	268.690	.505	.857
A person is right to take what is owed to them, even if they have to steal it	86.3333	273.602	.370	.859
I should be allowed to decide what is right and wrong	84.9939	273.299	.279	.861
I would not enjoy getting away with something that is wrong	85.1333	283.238	.005	.867
It's alright to fight someone if they stole from you	86.1455	269.881	.422	.858
It's not wrong to hit someone who puts you down	86.1030	269.569	.452	.858
It's not wrong to fight to save face	86.1152	268.920	.468	.857
Someone who makes you really angry shouldn't complain if they get hit	85.9636	270.865	.405	.859
There is nothing wrong with beating up someone who asks for it	86.2667	272.989	.375	.859
It is reasonable to fight someone who cheated on you	86.0909	271.242	.384	.859

Table 1.4. continued…

Questions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Stealing to survive is Understandable	86.1879	268.690	.505	.857
A person is right to take what is owed to them, even if they have to steal it	86.3333	273.602	.370	.859
I should be allowed to decide what is right and wrong	84.9939	273.299	.279	.861
I would not enjoy getting away with something that is wrong	85.1333	283.238	.005	.867
Only I should decide what I deserve	85.1818	277.162	.171	.863
It's wrong to allow lack of money to stop you from getting things	85.5212	267.093	.475	.857
A hungry man has the right to steal	86.6364	275.233	.540	.859
Taking what is owed to you is not really stealing	86.1818	273.979	.293	.861
Only I can decide what is right and wrong	85.2485	273.944	.237	.862
A person should decide what they deserve out of life	84.7394	278.694	.153	.863
No matter what I've done, it's only right to treat me like everyone else	84.7515	280.822	.085	.865
I am not likely to commit a crime in the future	85.9939	281.945	.055	.865
I would keep any amount of money I found	84.7576	280.514	.104	.864
I could see myself lying to the Police	86.1455	270.784	.405	.859
In certain situations, I would try to outrun the police	85.9273	265.031	.535	.856
I would be open to cheating certain People	86.2545	272.106	.372	.859
I could easily tell a convincing lie	86.0485	268.705	.457	.858
Rules will not stop me from doing what I want	86.1515	272.203	.352	.860
I would run a scam if I could get away with it	86.1394	263.938	.606	.855
For a good reason, I would commit a crime	86.2424	269.185	.463	.858
I will not break the law again	85.5939	278.255	.136	.864
I would be happy to fool the police	86.4424	275.358	.364	.860
I would not steal, and I would hold it against anyone who does	85.4848	277.056	.178	.863
I have a lot in common with people who break the law	85.8182	277.857	.177	.863

Table 1.4. continued…

Questions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
None of my friends have committed crimes	84.7515	274.749	.227	.862
I know several people who have committed crimes	85.1212	269.546	.397	.859
I always feel welcomed around criminal friends	86.1212	271.924	.363	.859
Most of my friends don't have criminal records	85.4545	274.127	.252	.862
I have friends who have been to jail	85.8545	269.210	.400	.859
None of my friends has ever wanted to commit a crime	84.7576	274.246	.264	.861
I have committed a crime with Friends	85.4545	267.762	.403	.858
I have friends who are well known to the police	85.9697	270.554	.352	.860

Table 1. 4.1 Reliability analysis item of the Attitude section on the MCAA scale

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
It's understandable to hit someone who insults you	42.1598	84.311	.475	.792
There is nothing wrong with beating up a child molester	41.9124	82.474	.442	.793
Sometimes you have to fight to keep your self-respect	42.1392	81.944	.546	.787
Someone who makes you very angry deserves to be hit	42.4691	85.483	.451	.794
People who get beat up usually had it coming	42.5928	87.030	.403	.797
It's alright to fight someone if they stole from you	42.4124	85.073	.447	.794
It's not wrong to hit someone who puts you down	42.3196	84.384	.492	.792
It's not wrong to fight to save Face	42.3763	85.345	.434	.795
Someone who makes you really angry shouldn't complain if they get hit	42.1701	85.251	.421	.795
There is nothing wrong with beating up someone who asks for it	42.5206	86.531	.400	.796
It is reasonable to fight someone who cheated on you	42.3557	85.536	.419	.795
Stealing to survive is Understandable	42.4433	86.984	.371	.798
A person is right to take what is owed to them, even if they have to steal it	42.5722	88.878	.274	.802
I should be allowed to decide what is right and wrong	41.2423	85.356	.363	.798
I would not enjoy getting away with something that is wrong	41.3454	94.207	-.073	.823
Only I should decide what I Deserve	41.4485	86.311	.306	.801
It's wrong to allow lack of money to stop you from getting things	41.7165	84.588	.419	.795
A hungry man has the right to Steal	42.8711	90.527	.305	.802
Taking what is owed to you is not really stealing	42.4124	88.523	.228	.805
Only I can decide what is right and wrong	41.4948	84.199	.380	.797
A person should decide what they deserve out of life	40.9691	87.512	.282	.802
No matter what I've done, it's only right to treat me like everyone else	41.0309	88.797	.205	.806

Table 1. 4. 2 Reliability analysis item of the Perceived behavioural control section on the MCAA scale

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I am not likely to commit a crime in the future	20.9623	31.923	.174	.720
I would keep any amount of money I found	19.7689	35.089	-.085	.750
In certain situations I would try to outrun the police	20.9245	27.719	.543	.666
I would be open to cheating certain people	21.2453	30.290	.369	.693
I could easily tell a convincing Lie	21.0472	28.766	.481	.677
Rules will not stop me from doing what I want	21.1038	29.904	.372	.693
I would run a scam if I could get away with it	21.1226	28.430	.522	.671
For a good reason, I would commit a crime	21.2406	29.207	.488	.678
I will not break the law again	20.5283	30.573	.237	.715
I would be happy to fool the police	21.4387	30.740	.468	.686
I would not steal, and I would hold it against anyone who does	20.4057	31.275	.210	.717

Table 1. 4. 3. Reliability analysis item of the Subjective norms section on the MCAA scale

Question	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I have a lot in common with people who break the law	19.1139	25.381	.252	.699
None of my friends have committed crimes	18.0253	24.686	.267	.699
I know several people who have committed crimes	18.4768	24.208	.333	.686
I always feel welcomed around criminal friends	19.4051	23.530	.440	.666
Most of my friends don't have criminal records	18.6371	25.063	.225	.707
I have friends who have been to jail	19.1013	21.812	.578	.637
None of my friends has ever wanted to commit a crime	18.0970	23.291	.419	.669
I have committed a crime with Friends	18.7806	22.486	.469	.659
I have friends who are well known to the police	19.2405	23.209	.423	.668

4.10 Data management and analysis

In this study, the Statistical Package for Social Science (SPSS) was used to analyze the data (De Vos Strydom, Fouche & Delport, 2005). Data analysis is the procedure of bringing order, structure and meaning to the accumulated data (De Vos, Strydome, Fouche & Delport, 2005). SPSS was best suited for this study's data analysis as it enabled statistical computations with ease. Frequency distributions of independent variables were used to develop a demographic profile of youth offenders. This described participant responses across dependent and independent variables. The test static utilized in this study was a series of regressions along with the hypothesized models followed by cluster analysis, factor analysis and chi-square test of independence. Statistical rules and principles were used to manage the data with respect to measurement characteristics for conducting fitting statistical strategies that

would yield meaningful interpretations (Grant, 2017).

4.11 Ethical considerations

De Vos, et al. (2005) posit that research should be based on ethics. Ethics are defined as a set of principles that are broadly accepted and offer rules of conduct towards experimental respondents (Babbie, 2007). In an effort to ensure the verification and authentication of this research, various codes of ethics were ensured.

Human participants' protection. The researcher is aware of the potential psychological harm that accompanies the reflections and disclosure of sensitive and personal information related to the offending behaviours of participants. To minimize such harms this study went through a full ethical approval process with the University of Cape Town Research ethics committee as well as the Department of Correctional services research ethics board and received approval. Please see appendix B and C.

Risks and benefits of participating in the study. The fundamental ethical rule of research is that it must bring no harm to participants (Babbie, 2009). Respondents can be harmed in a physical or emotional manner. Emotional harm is often more difficult to predict and to determine than physical harm, but often has more far-reaching consequences for participants (De Vos et al., 2005). In terms of benefits, the researcher made it clear to participants that they would be no direct benefits to them for participating in the study. However, the dissertation will be submitted to the Department of Correctional Services, where results and recommendations emanating from this study can be used to inform practice and policies, which may have an impact on them. Participants expressed no harm as a result of this study.

Informed consent. Informed consent entails giving participants or their legal representation adequate information pertaining to the goal of the research; the expected duration of involvement; the procedures which will be undertaken during the research; the probable advantages, disadvantages and dangers to which the participants may be exposed; as well as the credibility of the researcher (Williams, Tutty & Grinnel, 1995 as cited in De Vos et al., 2011). A research proposal was submitted to the Department of Correctional Services clearly stipulating the purpose of the study and was approved. Prior to data collection, practitioners within the DCS were consulted for the finalization of the questionnaire. In all the printed questionnaires there was a written informed consent form, written in both English and IsiZulu.

The researcher readout and clearly explained the contents of the form to all participants. The informed consent forms detailed information such as the purpose of the research, the nature of the questions, the duration it will take to complete the questionnaire, participants' rights as far as the study is concerned, who will have access to the information they provide and for what purpose. Participants were also allowed a chance to ask questions before participating. The researcher secured signed informed consents from all participants prior to the completion of the questionnaire.

Voluntary participation and privacy. Participation should at all times be voluntary and no one should be coerced into participating in a research study. In efforts to ensure voluntary participation, participants were informed about the nature of the research study prior to participation. Signed informed consents were secured prior to participation. With participants who could not read or write, who wished to participate in the study one-on-one interviews were held with the researcher where the purpose of the research was clearly explained using language the participant could understand. When participants had given consent to participate they were also allowed

to not answer questions they felt uncomfortable to answer. *Privacy* is defined as that which is not intended for others to see and analyse (De Vos et al., 2011). Because this study was conducted within the Durban maximum correctional facility, absolute privacy was not achieved as correctional facility wardens were within visual distance to ensure that both the researcher and offenders were safe, as per Department of Correctional Services requirements. Participants had no problem with this and understood the correctional facility security rules as it pertained to the data collection process.

Deception of participants. Corey, Corey, and Callanan (1993 as cited in De Vos et al., 2011) define deception as the deliberate withholding of information or offering incorrect information in order to ensure the participation of respondents when they would have possibly refused to participate. There was complete transparency on the purpose of the study. This was accomplished by clearly explaining what the purpose of the research is. It was also accomplished by emphasizing to the offender's that their decision to participate or not participate, will have no bearing on their sentence or any parole decisions made by the Department of Correctional Services.

Anonymity and confidentiality. Anonymity refers to ensuring that the identity of respondents is unidentifiable. *Confidentiality*, on the other hand, refers to the handling of information in a confidential manner, and it refers to agreements between persons that limit others access to the private information (De Vos et al., 2011). Anonymity was ensured through the use of codes on the questionnaires instead of names (e.g. KS001). All participants' questionnaires are held as confidential which is ensured through the use of electronic coding in the storage of data. The raw data is accessed only by the researcher and supervisor and is used solely for research purposes.

Actions and competence of researchers. Walliman (2006 as cited in De Vos et al., 2011) argues that researchers are ethically obligated to make sure they are competent, honest and adequately skilled to conduct research. The researcher is a qualified social worker who currently holds a BA and a Master's degree in Social Work. The researcher is registered with the professional body for Social Workers, which is the South African Council for Social Service Professions (SACSSP). In addition to this, the researcher already had experience in conducting research of this nature using similar instruments prior to this study. Also, the researcher had worked on a research project with ex-gangsters and ex-convicts in Cape Town locations and therefore had some research experience working with a similar population.

Release or publication of findings. The final report of this study will be printed and sent to the Department of Correctional Services prior to any publications as per the Department of Correctional Services terms of the agreement. All data is presented in a clear, accurate and authentic manner. There is no information that identifies participants in the final report (De Vos et al., 2011)

4.12 Limitations of the study

According to De Vos et al., (2011), limitations exist in all research studies even when the research is carefully planned; due to this they need to be stated clearly. Strengths and delimitations of the research are discussed below.

There are noteworthy strengths of the current study. First, this study explores a phenomenon that has not been extensively studied among this population in South Africa, which adds to the pool of research that seeks to fill the gap. Second, data were analysed using a sophisticated statistical technique (i.e. SPSS), which allowed all variables to be examined together in one model. Third, the researcher had prior experience in conducting research with youth offenders, which increased the

researchers' competence.

On the other hand, this study does have limitations. The first limitation was the use of offender's self-reported mental illness and substance use. Second, due to the nature of the study and the Department of Correctional Services safety precautions by, selected respondents may have been reluctant to participate, as research was not conducted in private. Third, as with any self-administered data collection approach, there are issues of bias because of social desirability concerns and a reluctance to answer questions about criminal behaviour. Therefore, the degree of validity and reliability of the data depends on the accuracy of the respondent's responses. Fourth, the scope of the study is limited to youth offenders at the Durban Maximum Correctional Service.

Data collected was analyzed with a sample of 280 participants, which limits generalizability to the larger youth offender population in South Africa. Thus, the results must be interpreted to the population that is in close proximity to the study sample. Finally, language literacy may have been a potential challenge. Since the study was conducted in KZN, the questionnaire was written in English and only translated into IsiZulu because the majority of the population speak those languages. Therefore, individuals who did not comprehend these languages through reading may have struggled. However, to mitigate such issues, for all youth offenders who could not read or write in IsiZulu or English, one-on-one interviews were held with the researcher.

CHAPTER 5

RESULTS

A quantitative research approach was used to investigate the relationship between mental illness (anxiety and depression), substance use, appetitive aggression, attitude, subjective norms, perceived behavioural control and the likelihood of recidivism. This chapter reports findings of the statistical analyses conducted in relation to the study objectives and the hypotheses tested. The data analysis was conducted at two levels; the first level is with demographic data; the second level is with research questions. The first level presents descriptive information, which includes socio-demographic influences such as age, gender, race and level of education. The second level of analysis is the analytical procedure, which includes descriptive analysis, a series of regressions, cluster analysis, factor analysis and the chapter is ended by presenting a chi-square test of independence with the established clusters.

5.1 Descriptive Analysis

Demographic characteristics of participants

Participants ages are fairly distributed, the minimum age for participants was 19 and maximum age is 35, the majority of participants (mode) were aged 32 and the average age is 30. The majority of participants have secondary school education n=171 (65.8%), and participants who have not received any formal education are n=9 (3.5%). The race of participants was as expected, the majority of participants are black n=245 (91.4%), Coloured n=17 (6.3%), Indian n=4 (1.5%), and White n=2 (.7%). In terms of gender, it was as expected, where a significant number of

participants were male n=251 (93.0%) compared to female participants n=19 (7.0%). The majority of participants are not married n=264 (97.8%), where only n=6 (2.2%) are married. 65.1% (n=177) of the participants reported having biological children, where 34.9% (n=95) reported to not have any biological children. (see Table 2).

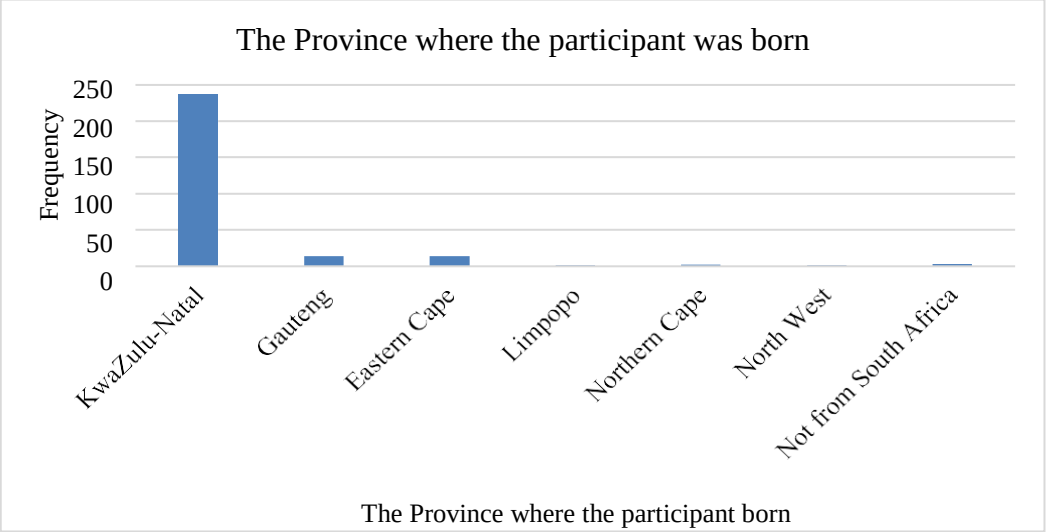
Table 2. Socio-demographic characteristics profile of participants

Socio-Demographics	Frequency	Valid Percent
What is your highest level of education? (n=260)		
None	9	3.5
Primary school	40	15.4
Secondary school	171	65.8
Post-secondary school	40	15.4
What is your race? (n=268)		
Black	245	91.4
Coloured	17	6.3
White	2	.7
Indian	4	1.5
What is our gender? (n=270)		
Male	251	93.0
Female	19	7.0
Are you married? (n=270)		
No	264	97.8
Yes	6	2.2
Do you have any biological children? (n=272		
No	95	34.9
Yes	177	65.1

Province of origin of participants

Figure 6 below, describes participants' (n= 272) population by province of origin, as expected the majority of participants are from KwaZulu-Natal n= 237 (87.1%), n=14 (5.1%) are from Gauteng, n=14 (5.1%) are from Eastern Cape, n=1 (.4%) from Limpopo, n=2 (.7%) from Northern Cape, n=1 (.4%) from North West, and n=3 (1.1%) who are from out of South Africa.

Figure 6. Provincial distribution of participants



Overall characteristics of the history of incarceration

Table 3 below, describes participants first age of arrest, the majority of the participants were incarcerated for the first time at the age 18 (8.2%), 19 (6.8%), 20 (6.8%), 23 (6.8%), 24 (9.7%), 25 (10.6%) and 27 (7.7%). The age of first arrest ranges between the ages of 15 to 35 years.

Table 3. Participants age of first arrest

Age	Frequency	Valid Percent
15.00	4	1.9
16.00	3	1.4
17.00	5	2.4
18.00	17	8.2
19.00	14	6.8
20.00	14	6.8
21.00	11	5.3
22.00	11	5.3
23.00	14	6.8
24.00	20	9.7
25.00	22	10.6
26.00	12	5.8
27.00	16	7.7
28.00	8	3.9
29.00	10	4.8
30.00	11	5.3
31.00	7	3.4
32.00	4	1.9
33.00	2	1.0
34.00	1	.5
35.00	1	.5

Table 4 below, presents the different crimes that offenders have been sentenced for. The most predominant crimes committed are murder, n=46 (22.0%), rape n=21 (10.0%), robbery n=53 (25.4%), burglary n=15 (7.2%) and theft n=16 (7.7%). A number of participants were sentenced for more than one crime including one or more of the most predominant crimes participants have been sentenced for.

Table 4. The nature of crimes participants are sentenced for

Crime sentenced for	Frequency	Valid Percent
Murder	46	22.0
Rape	21	10.0
Robbery	53	25.4
Assault	3	1.4
Burglary	15	7.2
Theft	16	7.7
motor vehicle theft/hijacking	7	3.3
Robbery and attempted murder	4	1.9
Burglary and theft	10	4.8
Possession of illegal weapon	2	1.0
Attempted murder	1	.5
Robbery and Rape	2	1.0
hijacking and possession of illegal weapon	1	.5
Rape and Murder	2	1.0
Att murder, murder, robbery, aggravating assault	3	1.4
Car theft, attempted murder and robbery	1	.5
Murder and attempted murder	1	.5
Attempted robbery	1	.5
illegal drugs	3	1.4
Robbery and murder	8	3.8
kidnapping, murder, assault, illegal ammunition	1	.5
Attempted rape	1	.5
Robbery and Kidnapping	2	1.0
Fraud	1	.5
Murder and Assault	1	.5
Drinking and driving beyond speed limit	1	.5
Trespassing	1	.5
Shooting someone	1	.5

Table 5 below, describes the duration participants have spent within the correctional facility thus far. The majority of participants have been within the correctional facility for longer than a year. Nineteen participants (7.6%) have been within the correctional facility for 1 year, n=16 (6.4%) have been within the correctional facility for two years. The largest group, n=24 (9.6%) have been incarcerated for three years, n=18 (7.2%) have been incarcerated for 4 years, n=10 (4.0%) have been incarcerated for 5 years, n=10 (4.0%) have been incarcerated for seven years, n=10 (4.0%) have been incarcerated for eight years, n=8 (3.2%) have been incarcerated for nine years. The duration spent within the correctional facility thus far ranges between 1 month to 18 years.

Table 5. Duration spent in the correctional facility thus far

Duration in months and years	Frequency	Valid Percent
.10	4	1.6
.20	4	1.6
.30	3	1.2
.40	9	3.6
.50	5	2.0
.60	7	2.8
.80	5	2.0
.90	4	1.6
1.00	19	7.6
1.10	2	.8
1.20	4	1.6
1.40	2	.8
1.60	3	1.2
1.70	3	1.2
1.80	2	.8
1.90	1	.4
2.00	16	6.4
2.10	1	.4
2.30	2	.8
2.60	5	2.0
2.70	2	.8

Table 5. Duration spent in the correctional facility thus far continued…

Duration in months and years	Frequency	Valid Percent
3.00	24	9.6
3.10	1	.4
3.11	1	.4
3.40	3	1.2
3.60	3	1.2
3.90	3	1.2
4.00	18	7.2
4.10	1	.4
4.30	2	.8
4.40	1	.4
4.50	1	.4
4.60	2	.8
4.80	1	.4
5.00	10	4.0
5.60	3	1.2
5.70	3	1.2
5.80	1	.4
6.00	9	3.6
6.10	1	.4
6.30	1	.4
6.40	1	.4
7.00	10	4.0
7.10	2	.8
7.80	2	.8
8.00	10	4.0
8.30	1	.4
8.40	1	.4
8.60	1	.4
8.70	1	.4
8.90	1	.4
9.00	8	3.2
9.40	2	.8
10.00	2	.8
10.70	1	.4
11.00	2	.8
12.00	2	.8
13.00	5	2.0
14.00	1	.4
15.00	3	1.2
16.00	1	.4
18.00	1	.4

Table 6 below, describes the length of the sentence participants are serving. The length of sentence ranges from 1 month to 60 years. A significant number of participants are serving long sentences. Nineteen (7.5%) participants are serving 10 years, another 19 (7.5%) are serving 12 years, 57 (22.4%) participants are serving 15 years, 12 (4.7%) are serving 18 years, 23 (9.1%) are serving 20 years, 36 (14.2%) are serving 25 years and eight participants (3.1%) are serving a 30 years' sentence.

Table 6. Length of sentence

Length of sentence	Frequency	Valid Percent
.10	1	.4
.60	1	.4
1.60	1	.4
2.60	1	.4
3.00	7	2.8
3.30	1	.4
3.60	1	.4
4.00	5	2.0
4.60	1	.4
5.00	4	1.6
6.00	6	2.4
6.60	2	.8
7.00	3	1.2
7.60	2	.8
8.00	2	.8
9.60	1	.4
10.00	19	7.5
10.70	1	.4
11.00	2	.8
12.00	19	7.5
13.00	6	2.4
14.00	2	.8
15.00	57	22.4
15.60	1	.4
16.00	4	1.6
16.80	1	.4
17.00	4	1.6
17.10	1	.4
18.00	12	4.7
19.00	2	.8
20.00	23	9.1

Table 6. Length of sentence continued…

Length of sentence	Frequency	Valid Percent
21.00	2	.8
22.00	5	2.0
25.00	36	14.2
25.60	1	.4
26.00	1	.4
27.00	1	.4
27.60	1	.4
30.00	8	3.1
31.00	1	.4
34.00	1	.4
35.00	1	.4
40.00	1	.4
46.00	1	.4
60.00	1	.4

Overall characteristics of recidivism

Table 7 below, describes the level of recidivism among participants, which is measured with the number of times participants have been sentenced. The majority of participants are those who have been sentenced once n=171 (67.6%), n=57 (22.5%) have been sentenced twice, n=17 (6.7%) have been sentenced three times, n=4 (1.6%) have been sentenced four times, and n=3 (1.2%) have been sentenced five times. When the number of times sentenced was recorded into a dichotomous variable to clearly depict recidivist participants from non-recidivist participants, n=171 (67.6%) are non-recidivist and n=82 (32.4%) of the participants have recidivated. The rate of recidivism among this offender population is 32.4%.

Table 7. Characteristics of recidivism

Recidivism (No of times sentenced)	Frequency	Valid Percent
One time	171	67.6
Two times	57	22.5
Three times	17	6.7
Four times	4	1.6
Five times	3	1.2
More than five times	1	.4

Table 8. Dichotomized characteristics of recidivism

Recidivism (No of times sentenced)_ recoded	Frequency	Valid Percent
One time	171	67.6
Two to more times	82	32.4

Table 9. Itemised distribution of anxiety

The table below describes participant's frequency of anxiety symptomatology.

Question	Not at all	A little	Quite a bit	Extremely
1. Suddenly scared for no reason	123 (45.4%)	75 (26.8%)	47 (17.3%)	26 (9.3%)
2. Feeling fearful	106 (39.1%)	69 (25.5%)	58 (21.4%)	38 (14.0%)
3. Faintness, dizziness or weakness	141 (51.8%)	61 (22.4%)	49 (18.0%)	21 (7.7%)
4. Nervousness or shakiness inside	127 (47.6%)	61 (22.8%)	53 (19.9%)	26 (9.7%)
5. Heart pounding or racing	133 (49.8%)	65 (24.3%)	36 (13.5%)	33 (12.4%)
6. Trembling	158 (61.2%)	56 (21.7%)	25 (9.7%)	19 (7.4%)
7. Feeling tense or keyed up	128 (47%)	77 (28%)	44 (16.3%)	21 (7.8%)
8. Headaches	105 (43%)	61 (25%)	46 (18.9%)	32 (13.1%)
9. Spells of terror or panic for no reason	138 (50.5%)	65 (23.8%)	37 (13.6%)	33 (12.1%)
10. Feeling restless, can't sit still	102 (39.2%)	69 (26.5%)	53 (20.4%)	36 (13.8%)

Table 10. Itemised distribution of depression

The table below describes participant's frequency of depression symptomology.

Question	Not at all	A little	Quite a bit	Extremely
11. Feeling low in energy, slowed down	83 (30.4%)	76 (27.8%)	67 (24.5%)	47 (17.2%)
12. Blaming yourself for things	17 (6.5%)	33 (12.5%)	69 (26.2%)	144 (54.8%)
13. Crying easily	131 (52.2%)	54 (21.5%)	41 (16.3%)	25 (10.0%)
14. Loss of sexual interest or pleasure	143 (55.6%)	48 (18.7%)	39 (15.2%)	27 (10.5%)
15. Poor appetite/Overeating	83 (31.4%)	98 (37.1%)	61 (23.1%)	22 (8.3%)
16. Difficulty falling sleep or staying asleep	114 (43.3%)	44 (16.7%)	58 (22.1%)	47 (17.9%)
17. Feeling hopeless about the future	110 (41.4%)	58 (21.8%)	48 (18.0%)	50 (18.8%)
18. Feeling sad	45 (17.8%)	79 (31.2%)	70 (27.7%)	59 (23.3%)
19. Feeling lonely	56 (22.1%)	59 (23.3%)	65 (25.7%)	73 (28.9%)
20. Thoughts of ending your life	198 (73.9%)	25 (9.3%)	19 (7.1%)	26 (9.7%)
21. Feeling of being trapped or caught	80 (30.4%)	50 (19.0%)	71 (27.0%)	62 (23.6%)
22. Worrying too much about things	31 (11.7%)	50 (18.8%)	86 (32.3%)	99 (37.2%)
23. Feeling no interest in things	107 (41.0%)	72 (27.6%)	50 (19.2%)	32 (12.3%)
24. Feeling everything is an effort	59 (22.1%)	69 (25.8%)	72 (27.0%)	67 (25.1%)
25. Feelings of worthlessness, feeling like a failure	89 (32.5%)	71 (25.9%)	56 (20.4%)	58 (21.2%)

Table 11. Itemised distribution of appetitive aggression

The table below describes participant's frequency of appetitive aggression

Question	Totally disagree	Disagree	Neither disagree nor agree	Agree	Totally agree
1. Do you like to listen to other people telling you stories of how they committed crime?	120 (43.8%)	26 (9.5%)	50 (18.2%)	61 (22.3%)	17 (6.2%)
2. Does the challenge of committing crime under difficult circumstances make the crime more pleasurable for you in comparison to when the circumstances are easier?	148 (54.6%)	79 (29.2%)	20 (7.4%)	20 (7.4%)	4 (1.5%)
3. Is it exciting for you if you make a person really suffer?	202 (73.7%)	52 (19.0%)	7 (2.6%)	5 (1.8%)	8 (2.9%)
4. Do you feel powerful when you go to commit a crime?	137 (50.2%)	45 (16.5%)	28 (10.3%)	50 (18.3%)	13 (4.8%)
5. Is it fun to prepare yourself for going to commit a crime?	153 (55.4%)	65 (23.6%)	24 (8.7%)	25 (9.1%)	9 (3.3%)
6. During committing a crime does the desire to hurt or kill take control of you?	172 (63.2%)	64 (23.5%)	15 (5.5%)	13 (4.8%)	8 (2.9%)
7. Do you enjoy inciting your fellows to commit crime?	201 (73.4%)	50 (18.2%)	14 (5.1%)	6 (2.2%)	3 (1.1%)
8. Is defeating another person more fun for you, when you see them hurt?	181 (66.3%)	62 (22.7%)	17 (6.2%)	9 (3.3%)	4 (1.5%)
9. Once committing a crime has started, do you get carried away by it?	108 (39.9%)	59 (21.8%)	35 (12.9%)	51 (18.8%)	18 (6.6%)
10. Have you harm others, just because you wanted to, without having a reason?	136 (49.6%)	60 (21.9%)	25 (9.1%)	41 (15.0%)	12 (4.4%)
11. Once you got used to committing crime, did you want to commit more and more crime?	147 (53.8%)	57 (20.9%)	14 (5.1%)	41 (15.0%)	14 (5.1%)
12. Do you know what it is like to feel the hunger/thirst to commit a crime?	130 (48.1%)	45 (16.7%)	27 (10.0%)	55 (20.4%)	13 (4.8%)

Table 11. Itemised distribution of appetitive aggression continued...

Question	Totally disagree	Disagree	Neither disagree nor agree	Agree	Totally agree
13. Is committing crime the only thing you want to do in your life?	212 (79.1%)	41 (15.3%)	7 (2.6%)	4 (1.5%)	4 (1.5%)
14. Can committing crime be sexually arousing for you?	177 (65.%)	48 (17.6%)	24 (8.8%)	18 (6.6%)	5 (1.8%)
15. When you commit crime, do you stop caring about the possibility that you could get killed?	91 (33.8%)	54 (20.1%)	33 (12.3%)	64 (23.8%)	27 (10.0%)

Table 12. Itemised distribution of Substance Use – CRAFFT measure

The table below describes participant's frequency of substance use.

Within the past 6 months have you…	Frequency	Valid Percent
1. Drink any alcohol (more than a few sips)?		
No	194	71.6%
Yes	77	28.4%
2. Smoke any marijuana or woonga?		
No	182	68.7%
Yes	83	31.3%
3. Used anything else to get high?		
No	196	73.1%
Yes	72	26.9%
4. Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?		
No	123	45.6%
Yes	147	54.4%
5. Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?		
No	130	49.1%
Yes	135	50.9%

Table 12. Itemised distribution of Substance Use – CRAFFT measure continued

Within the past 6 months have you…	Frequency	Valid Percent
6. Do you ever use alcohol or drugs while you are by yourself, or ALONE?		
No	128	48.7%
Yes	135	51.3%
7. Do you ever FORGET things you did while using alcohol or drugs?		
No	142	54.2%
Yes	120	45.8%
8. Does your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?		
No	75	29.0%
Yes	184	71.0%
9. Have you ever gotten into TROUBLE while you were using alcohol or drugs?		
No	94	36.0%
Yes	167	64.0%

Table 13. Itemised distribution of attitude towards criminal behaviour

The table below describes participant's frequency of pro-criminal attitude

Statement	Disagree	Undecided	Agree	Totally agree
1. It's understandable to hit someone who insults you	133 (49.3%)	56 (20.7%)	62 (23.0%)	19 (7.0%)
2. There is nothing wrong with beating up a child molester	132 (49.6%)	36 (13.5%)	45 (16.9%)	53 (19.9%)
3. Sometimes you have to fight to keep your self-respect	144 (55.%)	26 (10.0%)	66 (25.3%)	25 (9.6%)
4. Someone who makes you very angry deserves to be hit	171 (64.5%)	49 (18.5%)	30 (11.3%)	15 (5.7%)
5. People who get beat up usually had it coming	184 (69.2%)	42 (15.8%)	28 (10.5%)	12 (4.5%)
6. It's alright to fight someone if they stole from you	166 (61.9%)	50 (18.7%)	32 (11.9%)	20 (7.5%)
7. It's not wrong to hit someone who puts you down	149 (56.0%)	58 (21.8%)	38 (14.3%)	21 (7.9%)

Table 13. Itemised distribution of attitude towards criminal behaviour continued…

Statement	Disagree	Undecided	Agree	Totally agree
8. It's not wrong to fight to save face	159 (59.3%)	43 (16.0%)	48 (17.9%)	18 (6.7%)
9. Someone who makes you really angry shouldn't complain if they get hit	133 (49.1%)	64 (23.6%)	50 (18.5%)	24 (8.9%)
10. There is nothing wrong with beating up someone who asks for it	182 (68.2%)	38 (14.2%)	36 (13.5%)	11 (4.1%)
11. It is reasonable to fight someone who cheated on you	154 (57.9%)	54 (20.3%)	42 (15.8%)	16 (6.0%)
12. Stealing to survive is understandable	161 (62.4%)	54 (20.9%)	31 (12.0%)	12 (4.7%)
13. A person is right to take what is owed to them, even if they have to steal it	194 (71.1%)	48 (17.6%)	17 (6.2%)	14 (5.1%)
14. I should be allowed to decide what is right and wrong	55 (20.3%)	35 (12.9%)	108 (39.9%)	73 (26.9%)
15. I would not enjoy getting away with something that is wrong	45 (16.9%)	75 (28.1%)	47 (17.6%)	100 (37.5%)
16. Only I should decide what I deserve	69 (26.2%)	41 (15.6%)	93 (35.4%)	60 (22.8%)
17. It's wrong to allow lack of money to stop you from getting things	87 (33.0%)	55 (20.8%)	86 (32.6%)	36 (13.6%)
18. A hungry man has the right to steal	215 (84.0%)	29 (11.3%)	8 (3.1%)	4 (1.6%)
19. Taking what is owed to you is not really stealing	172 (64.4%)	39 (14.6%)	33 (12.4%)	23 (8.6%)
20. Only I can decide what is right and wrong	84 (31.8%)	41 (15.5%)	70 (26.5%)	69 (26.1%)
21. A person should decide what they deserve out of life	45 (16.6%)	14 (5.2%)	112 (41.3%)	100 (36.9%)
22. No matter what I've done, it's only right to treat me like everyone else	46 (17.9%)	14 (5.4%)	105 (40.9%)	92 (35.8%)

Table 14. Itemised distribution of perceived behavioural control

The table below describes participant's frequency of perceived behavioural control

Statement	Disagree	Undecided	Agree	Totally agree
23. I am not likely to commit a crime in the future	119 (44.4%)	84 (31.3%)	26 (9.7%)	39 (14.6%)
24. I would keep any amount of money I found	34 (13.0%)	34 (13.0%)	105 (40.1%)	89 (34.0%)
25. I could see myself lying to the police	154 (60.6%)	49 (19.3%)	31 (12.2%)	20 (7.9%)
26. In certain situations I would try to outrun the police	147 (55.7%)	49 (18.6%)	40 (15.2%)	28 (10.6%)
27. I would be open to cheating certain people	185 (69.3%)	39 (14.6%)	26 (9.7%)	17 (6.4%)
28. I could easily tell a convincing lie	155 (59.2%)	45 (17.2%)	39 (14.9%)	23 (8.8%)
29. Rules will not stop me from doing what I want	151 (58.3%)	47 (18.1%)	38 (14.7%)	23 (8.9%)
30. I would run a scam if I could get away with it	162 (64.3%)	33 (13.1%)	39 (15.5%)	18 (7.1%)
31. For a good reason, I would commit a crime	182 (68.4%)	29 (10.9%)	37 (13.9%)	18 (6.8%)
32. I will not break the law again	84 (32.3%)	64 (24.6%)	49 (18.8%)	63 (24.2%)
33. I would be happy to fool the police	188 (73.7%)	43 (16.9%)	17 (6.7%)	7 (2.7%)
34. I would not steal, and I would hold it against anyone who does	66 (24.7%)	76 (28.5%)	64 (24.0%)	61 (22.8%)

Table 15. Itemised distribution of subjective norms

The table below describes participant's frequency of subjective norms

Statement	Disagree	Undecided	Agree	Totally agree
35. I have a lot in common with people who break the law	119 (44.7%)	50 (18.8%)	80 (30.1%)	17 (6.4%)
36. None of my friends have committed crimes	35 (13.5%)	45 (17.3%)	39 (15.0%)	141 (54.2%)
37. I know several people who have committed crimes	72 (27.2%)	20 (7.5%)	114 (43.0%)	59 (22.3%)
38. I always feel welcomed around criminal friends	164 (61.9%)	41 (15.5%)	37 (14.0%)	23 (8.7%)
39. Most of my friends don't have criminal records	63 (24.1%)	91 (34.9%)	28 (10.7%)	79 (30.3%)
40. I have friends who have been to jail	130 (50.0%)	32 (12.3%)	71 (27.3%)	27 (10.4%)
41. None of my friends has ever wanted to commit a crime	28 (10.6%)	64 (24.3%)	42 (16.0%)	129 (49.0%)
42. I have committed a crime with friends	107 (40.4%)	13 (4.9%)	103 (38.9%)	42 (15.8%)
43. I have friends who are well known to the police	152 (56.9%)	36 (13.5%)	48 (18.0%)	31 (11.6%)

5.2 Tests of normality

As shown in Table 16, a test of normality for recidivism was performed. The test of normality is useful in determining suitable statistical tests to run based on the distribution of the data. The test statistics are shown in the table below. Two tests for normality are run. For dataset smaller than 2000 elements, the Shapiro-Wilk test is used, otherwise, the Kolmogorov-Smirnov test is used. This study had a total of 280 usable elements, therefore the Shapiro-Wilk test is used. The p-value is .000. Therefore, failing to reject the null hypothesis and conclude that the data is indeed not

normally distributed. Therefore, indicating that the data should be analyzed using non-parametric tests.

Table 16. Test of normality: Recidivism

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Number of times participant has been sentenced_new code	.431	253	.000	.590	253	.000
a Lilliefors Significance Correction						

Table 17, describes the test of normality for anxiety. The Shapiro-Wilk test p-value is .000. Therefore, failing to reject the null hypothesis and conclude that the data for anxiety is indeed not normally distributed.

Table 17. Test of normality: Anxiety

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
HSCAnxietySectionSum	.098	280	.000	.968	280	.000
a Lilliefors Significance Correction						

Table 18, describe the test of normality for depression. The Shapiro-Wilk test p-value is .108. Therefore, rejecting the null hypothesis and conclude that the data is indeed normally distributed.

Table 18. Test of normality: Depression

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
HSCDepressionSectionSum	.064	279	.008	.992	279	.108
a Lilliefors Significance Correction						

Table 19, describes the test of normality for appetitive aggression. The Shapiro-Wilk test p-value is .000. Therefore, failing to reject the null hypothesis and conclude that the data for appetitive aggression is indeed not normally distributed.

Table 19. Test of normality: Appetitive aggression

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
AppetitiveAggresionSum	.079	279	.000	.962	279	.000

a Lilliefors Significance Correction

Table 20, describes the test of normality for substance use. The Shapiro-Wilk test p-value is .000. Therefore, failing to reject the null hypothesis and conclude that the data for substance use is indeed not normally distributed.

Table 20. Test of normality: Substance use

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SubstanceUseSum	.137	276	.000	.918	276	.000

a Lilliefors Significance Correction

Table 21, describes the test of normality for pro-criminal attitude. The Shapiro-Wilk test p-value is .007. Therefore, failing to reject the null hypothesis and conclude that the data for pro-criminal attitude is indeed not normally distributed.

Table 21. Test of normality: Pro-criminal attitude

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MCAaAttitudeSectionSum	.060	278	.016	.986	278	.007

a Lilliefors Significance Correction

Table 22, describes the test of normality for perceived behavioural control. The Shapiro-Wilk test $p < .000$. Therefore, failing to reject the null hypothesis and conclude that the data for perceived behavioural control is indeed not normally distributed.

Table 22. Test of normality: Perceived behavioural control

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MCAAPercBehavCntrlSectionSum	.083	273	.000	.974	273	.000

a Lilliefors Significance Correction

Table 23, describes the test of normality for subjective norms. The Shapiro-Wilk test p-value is .045. Therefore, failing to reject the null hypothesis and conclude that the data for subjective norms are indeed not normally distributed.

Table 23. Test of normality: Subjective norms

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MCAASubNorms_AssociatesSum	.055	270	.046	.989	270	.045

a Lilliefors Significance Correction

The table 24, describe the test of normality for intention to recidivate. The Shapiro-Wilk test p-value is .000. Therefore, failing to reject the null hypothesis and conclude that the data for intention to recidivate is indeed not normally distributed.

Table 24. Test of normality: Intention to recidivate

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IntentionToRecidivate	.539	269	.000	.145	269	.000

a Lilliefors Significance Correction

5.3 Prevalence of anxiety

Table 25 below, describes the prevalence of an anxiety symptomology among participants, which was measured using the Hopkins Symptoms Checklist (HSCL). The original scoring guide indicates that anyone who scores 1.75 and above is symptomatic of an anxiety. Following this guide, when anxiety was recoded into a categorical dichotomous variable to clearly depict participants symptomatic of anxiety (those who scored 1.75 and above) and participants not symptomatic of anxiety (those who scored below 1.75), findings indicate that all participants n=280 (100%) are symptomatic of anxiety. Therefore, the rate of anxiety symptomology among this offender population is 100%.

Table 25. The prevalence of anxiety symptomology

AnxietyCat1Recoded				
		Frequency	Valid Percent	Cumulative Percent
Symptomatic	2.00	280	100.0	100.0

5.4 Prevalence of depression

Table 26 below, describes the level of depression symptomology among participants, which was measured using the Hopkins Symptoms Checklist (HSC). The original scoring guide indicates that anyone who scores 1.75 and above is symptomatic of depression. Following this guide, when depression was recoded into a categorical dichotomous variable to clearly depict participants symptomatic of depression (those who scored 1.75 and above) and participants not symptomatic of depression (those who scored below 1.75), findings indicate that one participants n=1 (.4%) is not symptomatic of depression, while n=279 (99.6%) of the participants are symptomatic of depression.

Therefore, the rate of depression symptomology among this offender population is 99.6%. Overall these findings indicate a high mental health crisis among this offender population.

Table 26. The prevalence of depression symptomology

DepressionCat1Recoded				
		Frequency	Valid Percent	Cumulative Percent
Not symptomatic	1.00	1	.4	.4
Symptomatic	2.00	279	99.6	100.0

5.5 Prevalence of appetitive aggression

Table 27 below, describes the level of appetitive aggression (attraction to criminal behaviour) among participants, which was measured using an Adapted version of the Appetitive Aggression Scale (AAS). In this study, appetitive aggression symptomology was measured using the median, where everyone who scored equal to and above the median (12.0000) was symptomatic of appetitive aggression and anyone who scored less was not symptomatic of appetitive aggression. When appetitive aggression was coded into a categorical dichotomous variable to clearly depict participants symptomatic of appetitive aggression and participants not symptomatic of appetitive aggression, findings indicate that n=134 (47.9%) are not symptomatic of appetitive aggression, while n=146 (52.1%) of the participants are symptomatic of appetitive aggression. Therefore, the rate of attraction to criminal behaviour among this offender population is 52.1%.

Table 27. The prevalence of appetitive aggression

AppAggreCatRecoded				
		Frequency	Valid Percent	Cumulative Percent
Not symptomatic	1.00	134	47.9	47.9
Symptomatic	2.00	146	52.1	100.0

5.6 Prevalence of substance use

Table 28 below, describes the level of substance use among participants within the past 6 months (from the data collection period), which was measured using the CRAFFT screening measure. The original scoring guide indicates that a score of 2 and more is a positive screen indicating a need for additional substance use dependence assessment. Following this scoring guide, when substance use was coded into a categorical dichotomous variable to clearly depict participants symptomatic of substance use and participants not symptomatic of a substance use, findings indicate that n=79 (28.2%) are not symptomatic of a substance use and n=201 (71.8%) of the participants are symptomatic of a substance use in a manner that requires further assessment. Overall, these findings merit the need for further assessment to determine substance use dependence among this offender population as the rate of substance use in the past 6 months (from the data collection period) is 71.8% among this offender population.

Table 28. The prevalence of substance use

SubUseCatRecoded1				
		Frequency	Valid Percent	Cumulative Percent
Not symptomatic	1.00	79	28.2	28.2
Symptomatic	2.00	201	71.8	100.0

5.7 Prevalence of pro-criminal attitude

Table 29 below describes the level of pro-criminal attitudes among participants, which was measured using an adapted version of the Measure of Criminal Attitudes and Associates (MCAA). The original scale had a particular scoring guide, however, due to the adaptation of the measure, it is not possible to use that scoring guide to

determine the prevalence of pro-criminal attitude, perceived behavioural control and subjective norms. Therefore, the median split is used.

In this study, pro-criminal attitudes were measured using the median, where everyone who scored equal to and above the median (41.0000) has a pro-criminal attitude and anyone who scored less does not have a pro-criminal attitude. When attitude was recoded into a categorical dichotomous variable to clearly depict participants with pro-criminal attitudes and those without, findings indicate that n=134 (47.9%) are not symptomatic of pro-criminal attitudes and n=146 (52.1%) of the participants are symptomatic of pro-criminal attitudes. Therefore, the rate of pro-criminal attitudes among this offender population is 52.1%.

Table 29. Pro-criminal attitude prevalence

		Attitude		
		Frequency	Valid Percent	Cumulative Percent
Not symptomatic	1.00	134	47.9	47.9
Symptomatic	2.00	146	52.1	100.0

5.8 Prevalence of perceived control in executing criminal behaviour

Table 30, below describes participants perceived control in executing future criminal behaviour and receive the desired outcome, which was measured using an adapted version of the Measure of Criminal Attitudes and Associates (MCAA). In this study, perceived control was measured using the median, where everyone who scored equal to and above the median (21.0000) had high perceived control to execute future criminal behaviour and receive the desired outcome and anyone who scored less did not have perceive control to execute future criminal behaviour and receive the desired outcome. When perceived control was recoded into a categorical dichotomous variable to clearly depict participants with perceived control and those without, findings indicate that n=124 (44.3%) did not have perceived control to execute

criminal behaviour and receive the desired outcome and n=156 (55.7%) of the participants had perceived control to execute future criminal behaviour and receive the desired outcome. Therefore, the rate of perceived behavioural control among this offender population is 55.7%.

Table 30. Perceived behavioural control prevalence

PercBehCntrlCatRecoded				
		Frequency	Valid Percent	Cumulative Percent
Not symptomatic	1.00	124	44.3	44.3
Symptomatic	2.00	156	55.7	100.0

5.9 Prevalence of subjective norm influence in executing criminal behaviour

Table 31, below describes participants' subjective norms as influenced by social norms to execute criminal behaviour, which was measured using an adapted version of the Measure of Criminal Attitudes and Associates (MCAA). In this study, criminal subjective norms were measured using the median split, where everyone who scored equal to and above the median (20.0000) had high criminal subjective norms and anyone who scored less did not. When subjective norms were recoded into a categorical dichotomous variable to clearly depict participants with criminal subjective norms and those without, findings indicate that n=128 (45.7%) did not have criminal subjective norms and n=152 (54.3%) of the participants' criminal behaviour was influenced by subjective norms. Therefore, the rate of criminal subjective norms among this offender population is 54.3%.

Table 31. Criminal subjective norm prevalence

SubNormsCatRecoded				
		Frequency	Valid Percent	Cumulative Percent
Not symptomatic	1.00	128	45.7	45.7
Symptomatic	2.00	152	54.3	100.0

5.10 Correlations among predictor variables

Table 32, describes the correlation among all predictor variables. Findings indicate a strong correlation between anxiety and depression. A strong correlation between anxiety and substance use. A strong correlation between depression and appetitive aggression was also found. A strong correlation was found between depression and pro-criminal attitude. A strong correlation between appetitive aggression and substance use is found. A strong correlation between appetitive aggression and pro-criminal attitude is found. A strong correlation between appetitive aggression and perceived behavioural control is found.

A strong correlation between appetitive aggression and subjective norms is found. There is also a strong correlation between pro-criminal attitudes and substance use. A strong correlation is found between substance use and perceived behavioural control. A strong correlation between substance use and subjective norms is found. A strong correlation between pro-criminal attitude and perceived behavioural control is found. A strong correlation is found between pro-criminal attitude and subjective norms. A strong correlation is found between perceived behavioural control and subjective norms. Additionally, correlations were found between depression and substance use. Another correlation was found between depression and perceived behavioural control. Finally, a correlation was found between anxiety and pro-criminal attitudes. None of the independent variables significantly correlated with the intention to recidivate.

Table 32. Correlation matrix among all predictor variables

Measures	1	2	3	4	5	6	7	8
1. Anxiety disorder	1.000	.611**	.155**	.188**	.153*	.172**	-.008	-.033
2. Depression disorder	.611**	1.000	.217**	.132*	.301**	.141*	.088	-.058
3. Appetitive Aggression	.155**	.217**	1.000	.421**	.316**	.290**	.396**	.064
4. Substance Use	.188**	.132*	.421**	1.000	.193**	.253**	.366**	.052
5. Attitude towards criminal behaviour	.153*	.301**	.316**	.193**	1.000	.396**	.269**	.056
6. Perceived behavioural control	.172**	.141*	.290**	.253**	.396**	1.000	.354**	.079
7. Subjective Norms	-.008	.088	.396**	.366**	.269**	.354**	1.000	.083
8. Intention to re-offend	-.033	-.058	.064	.052	.056	.079	.083	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 33 below, describes the correlation matrix of variables along the first hypothesized model. The first hypothesized model explored the relationship between anxiety, depression and the mediating effect of appetitive aggression and substance use on recidivism. The relationship indicates a strong correlation between anxiety and depression, a strong correlation between depression and appetitive aggression, a strong correlation between anxiety and substance use and a strong correlation between appetitive aggression and substance use. All variables are significant at a 99% confidence interval. Another correlation is found between depression and substance use, significant at a 95% confidence interval.

Table 33. Correlation matrix of the first hypothesized model variables

Measures	1	2	3	4
1. Anxiety disorder	1.000	.611**	.155**	.188**
2. Depression disorder	.611**	1.000	.217**	.132*
3. Appetitive Aggression	.155**	.217**	1.000	.421**
4. Substance Use	.188**	.132*	.421**	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 34, describes the correlation matrix of variables along the hypothesized model. The second model explored the relationship between attitudes towards criminal behaviour, subjective norms, perceived behavioural control, and the mediating effect of intention between attitudes, perceived control and subjective norms on recidivism. The relationship indicates a strong correlation between pro- criminal attitudes and perceived behavioural control, a strong correlation between subjective norms and pro-criminal attitudes, and a strong correlation between subjective norms and perceived behavioural control. All correlations are significant at the 99% confidence interval. No significant correlation is found with the intention to recidivate.

Table 34. Correlation matrix of the second hypothesized model variables

Measures	1	2	3	4
1. Attitude towards criminal behaviour	1.000	.396**	.269**	.056
2. Perceived behavioural control	.396**	1.000	.354**	.079
3. Subjective Norms	.269**	.354**	1.000	.083
4. Intention to re-offend	.056	.079	.083	1.000
** Correlation is significant at the 0.01 level (2-tailed).				

Table 35. Means and standard deviations

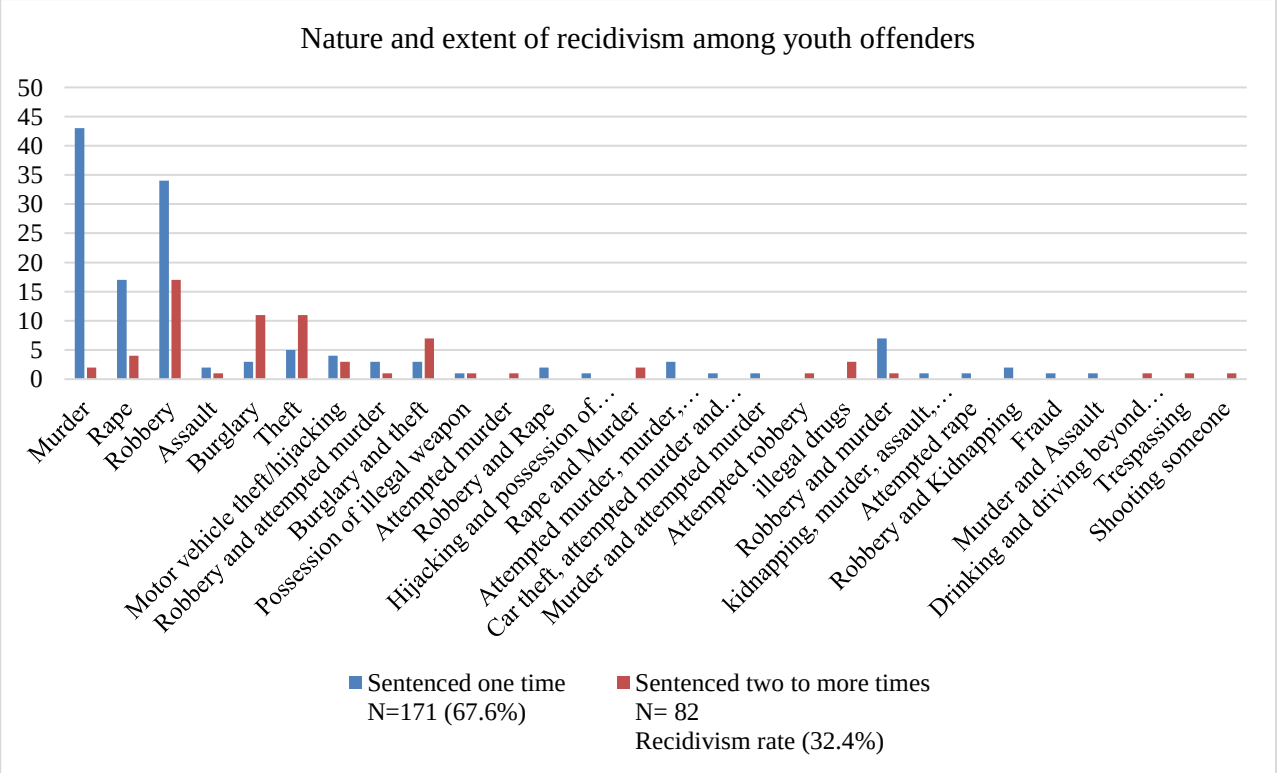
Measure	Mean	Std. Deviation
Anxiety (n=280)	18.0821	6.56948
Depression (n=279)	32.5663	10.47994
Appetitive Aggression (n= 279)	12.5878	8.72761
Substance Use (n=276)	4.0580	2.78899
Attitude towards criminal behaviour (n= 278)	41.8381	10.54263
Perceived behavioural control (n= 273)	21.8608	6.23165
Subjective Norms (n= 270)	20.4889	5.53108
Intention to re-offend (n=269)	.0260	.15950

Generally, a number of participants present with depression symptomology and pro-criminal attitudes as the standard deviation are high for both variables. Participants also present with appetitive aggression, anxiety symptomology and perceived control to execute criminal behaviour and receive the desired outcome. Participants did not report high substance use and a high intention to recidivate.

5.11 RQ 1: What is the nature and extent of recidivism among youth offenders?

Figure 7, describes the nature and extent of recidivism. The most predominant crimes committed by offenders who have not recidivated (67.6%) are murder, rape and robbery. The most predominant crimes committed by offenders who have recidivated (32.4%) are robbery, burglary and theft. Therefore, the nature of recidivism involves crimes such as murder, rape, robbery, burglary and theft. The extent of recidivism among this offender population is 32.4%. Data also indicates that there are participants who are sentenced for a combination of crimes.

Figure 7. Nature and extent of recidivism among youth offenders



5.12 Multiple regression analysis was conducted to respond to all the research questions (RQ)

RQ2: To what degree do the prevalence and correlates of mental health issues influence recidivism among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism based on anxiety and depression. The regression equation was not significant ($F(2,249) = .096$, $p>.05$) with an R^2 of .001. Neither anxiety nor depression is a significant predictor of recidivism, as only 1% of the variance in recidivism was accounted for by anxiety and depression. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

RQ3: To what degree does the relationship between mental health and appetitive aggression, influence recidivism among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism based on anxiety, depression and appetitive aggression. The regression equation was not significant ($F(3,247) = .361$, $p>.05$) with an R^2 of .004. Neither anxiety, depression or appetitive aggression is a significant predictor of recidivism as only 4% of the variance in recidivism was accounted for by all variable predictors. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

RQ 4: To what degree does substance use mediate the relationship between mental health and recidivism among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism based on anxiety, depression and substance use. The regression equation was not significant (F

(3,245) = .824, p>.05) with an R^2 of .010. Neither anxiety, depression or substance use is a significant predictor of recidivism as only 1% of the variance in recidivism was accounted for by all variable predictors. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

RQ 5: To what degree is the theory of planned behaviour applicable in predicting recidivist behaviour among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism based on attitudes, subjective norms, perceived behavioural control and intention to recidivate. The regression equation was not significant (F (4,237) = .298, p>.05) with an R^2 of .005. Neither attitude, subjective norms, perceived behavioural control and the intention to recidivate is a significant predictor of recidivism as only 5% of the variance in recidivism was accounted for by all predictor variables. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

The multiple regression analysis for the continuous recidivism variable yielded results that are not significant with all predictor variables. Therefore, the researcher transformed the continuous recidivism dependent variable into a square root and re-ran the multiple regression analysis. Findings are presented subsequently.

RQ 2: To what degree do the prevalence and correlates of mental health influence recidivism among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism (sqrt) based on anxiety and depression. The regression equation was not significant (F

(2,249) = .123, p>.05) with an R^2 of .001. Neither anxiety nor depression is a significant predictor of recidivism, as only 1% of the variance in recidivism was accounted for by anxiety and depression. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

RQ 3: To what degree does the relationship between mental health and appetitive aggression, influence recidivism among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism (sqrt) based on anxiety, depression and appetitive aggression. The regression equation was not significant (F (3,247) = .366, p>.05) with an R^2 of .004. Neither anxiety, depression or appetitive aggression is a significant predictor of recidivism as only 4% of the variance in recidivism was accounted for by all variable predictors. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

RQ 4: To what degree does substance use mediate the relationship between mental health and recidivism among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism (sqrt) based on anxiety, depression and substance use. The regression equation was not significant (F (3,245) = .744, p>.05) with an R^2 of .009. Neither anxiety, depression or substance use is a significant predictor of recidivism as only 9% of the variance in recidivism was accounted for by all variable predictors. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

RQ 5: To what degree is the theory of planned behaviour applicable in predicting recidivist behaviour among youth offenders?

Multiple linear regression was calculated predicting participants' recidivism (sqrt) based on attitudes, subjective norms, perceived behavioural control and intention to recidivate. The regression equation was not significant ($F(4,237) = .269$, $p>.05$) with an R^2 of .005. Neither attitude, subjective norms, perceived behavioural control and the intention to recidivate is a significant predictor of recidivism as only 5% of the variance in recidivism was accounted for by all predictor variables. This percentage suggest that the multiple linear regression model was not robust enough to predict recidivism.

Overall, the multiple regression analysis shows that the regression models are not robust enough to predict recidivism among this offender population. Analytical redundancy is good practice, therefore, an additional test was run to determine the prediction of recidivism by the central study variables. As such, binary logistic regression is run, findings are presented below.

5.13 Binary logistic regression analysis

A binary logistic regression was calculated predicting participants' recidivism based on anxiety, depression, appetitive aggression and substance use. The continuous recidivism dependent variable was transformed into a dichotomous variable where recidivism is equal to 1 if the respondent recidivated two to more times and 0 if they have only been sentenced to a correctional facility once. The coefficient on anxiety has a Wald statistic equal to .870 which is not significant at the .01 or .05 level, (df (1) = .351. The coefficient on depression has a Wald statistic equal to 1.278, which is also not significant at the .01 or .05 level, (df (1) = .258. The coefficient on appetitive aggression has a Wald statistic equal to .180, which is also not significant at the .01 or

.05 level, (df (1) = .672. The coefficient on substance use has a Wald statistic equal to .427 which is also not significant at the .01 or .05 level, (df (1) = .514. Overall, the first model is statistically not significant at the .01 or .05 level according to the Model chi-square statistics. The regression model does not predict recidivism (df (8) = .357), suggesting that the interaction of anxiety, depression, appetitive aggression and substance use did not predict a greater likelihood of recidivism.

A binary logistic regression was calculated predicting participants' recidivism based on attitude, subjective norms, perceived behavioural control and intention to recidivate. The coefficient on attitude has a Wald statistic equal to .774, which is not significant at the 01 or .05 level, (df (1) = .379. The coefficient on perceived behavioural control has a Wald statistic equal to .008, which is not significant at the 01 or .05 level, (df (1) = .929. The coefficient on subjective norms has a Wald statistic equal to .892, which is not significant at the 01 or .05 level, (df (1) = .345. The coefficient on intention to recidivate has a Wald statistic equal to .015, which is not significant at the 01 or .05 level, (df (1) = .904. Overall, the second model is not statistically significant at the .01 or .05 level according to the Model chi-square statistics. The regression model does not predict recidivism (df (8) = .323, suggesting that the interaction of attitude, subjective norms, perceived behavioural control and intention to recidivate did not predict a greater likelihood of recidivism.

Overall, regression analysis shows that the central study variables do not single-handedly predict recidivism. These findings prompted the further exploration of the effect of the combination of these variables in predicting recidivist behaviour, which was done through cluster analysis. Findings are presented below.

5.14 Cluster analysis

A two-step cluster analysis of the factors (i.e., anxiety, depression, substance use, appetitive aggression, attitudes, perceived behavioural control, subjective norms and intention to recidivate) was used to identify distinct clusters using SPSS v. 25. Cluster analysis aims to classify a sample of subjects (ob-jects) on the basis of a set of measured variables into a number of different groups such that similar subjects are placed in the same group (Everitt, Landau, & Leese, 2001). The researcher identified that there is a special population (n=30) that that did not report their substance use and appetitive aggression, which is suspicious. This population may or may not have a common reason for not sharing their drug use information. Therefore, it made more sense to look at the population that gave guidance for interventions, excluding of the special population.

Along the first model, four clusters were generated by SPSS. Along the second model, two clusters were generated by SPSS. Findings are presented for the (n=250) sample size, which provides guidance for intervention independent of the special population (n=30).

It should be noted that the naming of the clusters attempts to reflect the characteristics of each empirically determined group. Cluster numbers with the corresponding label identify patterns of risk identified using the study measures.

Figure 8, presents the Silhouette measure of cohesion and separation (0.6) of the first model cluster analysis. Findings reveal a significant cluster quality, indicating that the model fits the data.

Figure 8. First hypothesized model cluster quality

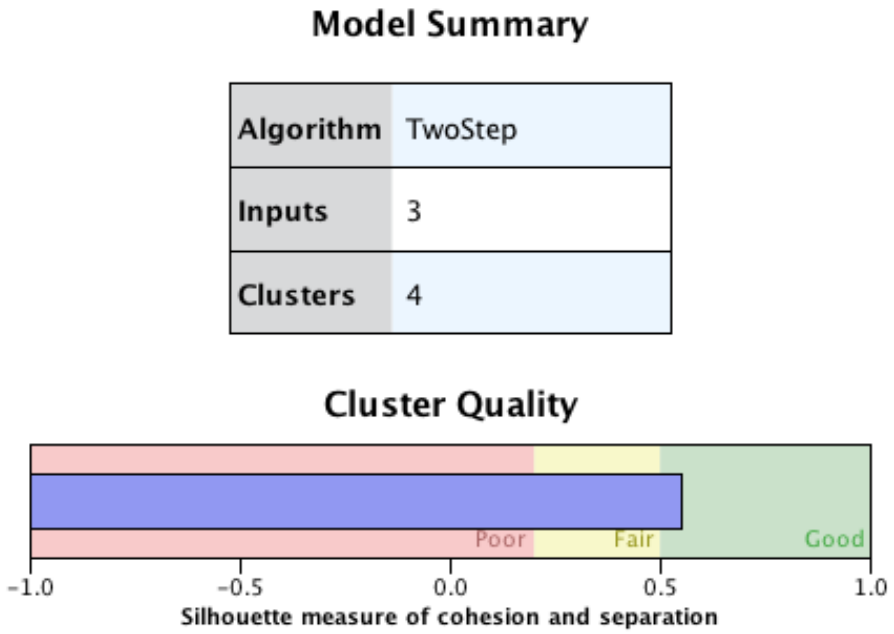


Figure 9, describes the least and most important predictor variable of recidivism along the first model. As portrayed, anxiety is the most important predictor of recidivism followed by depression. Substance use is the third important predictor variable followed by appetitive aggression, which is the least significant predictor of recidivism.

Figure 9. First hypothesized model variable predictor importance

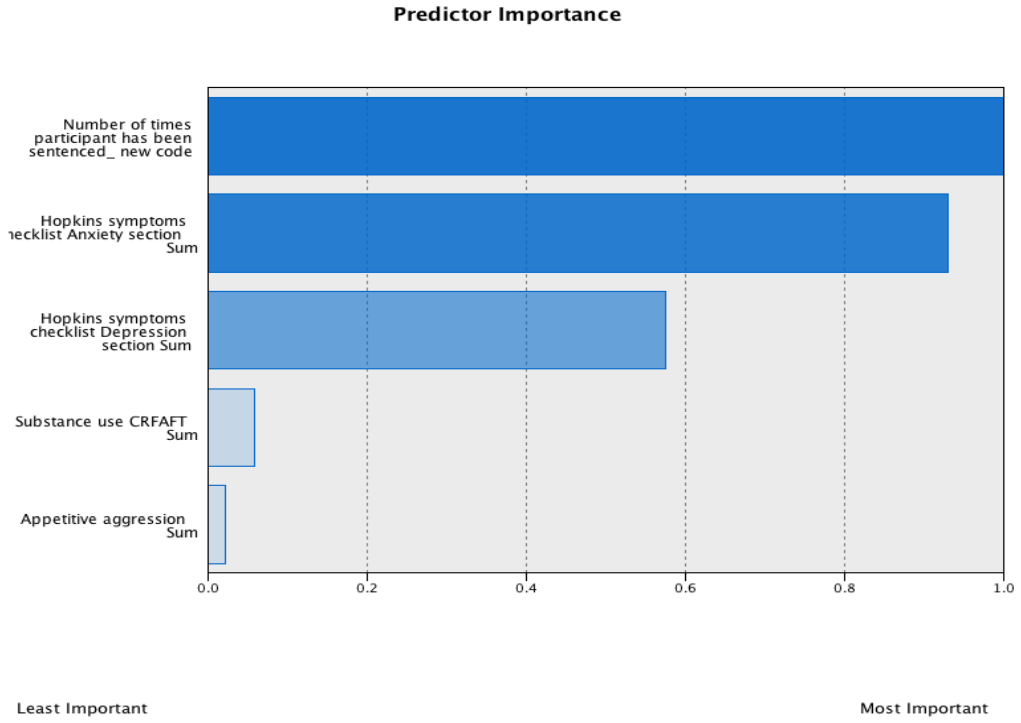


Figure 10, present the prevalence of mental illness, substance use and appetitive aggression among participants within the four established clusters. Findings indicate that the cluster with the highest prevalence of mental illness, substance use and appetitive aggression is cluster 2.

Figure 10. Prevalence of mental illness, substance use and appetitive aggression

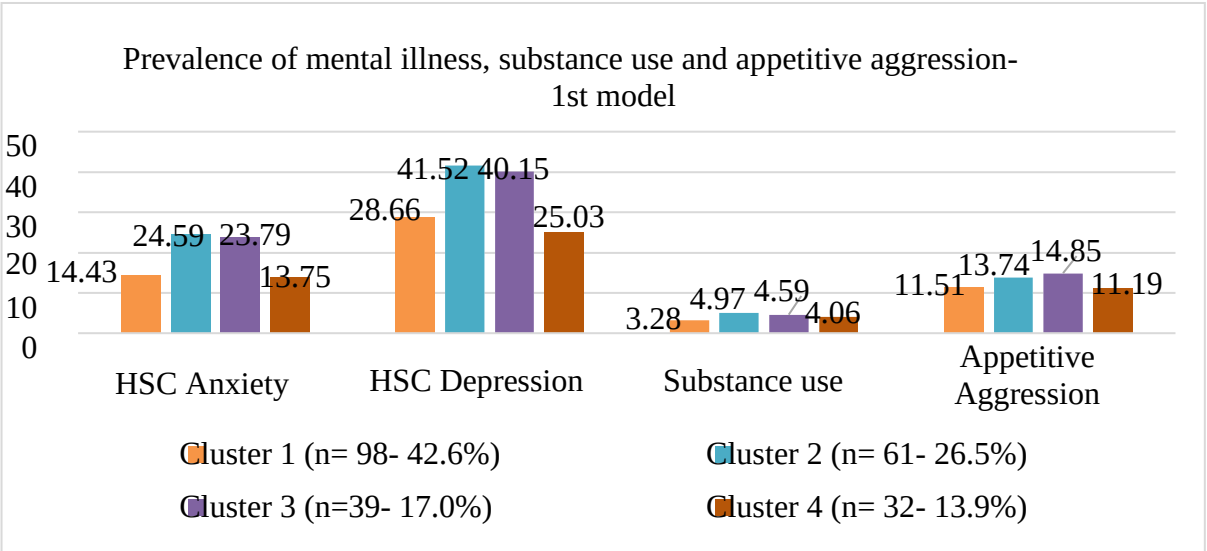


Figure 11, presents findings of Cluster 1. Cluster 1, "*low risk*" constituted 42.6% of the population. These participants have not recidivated. Overall, this cluster had low levels of anxiety, low levels of depression. This cluster's appetitive aggression or attraction towards criminal behaviour is moderate, with somewhat low substance use. This group can be considered as "mentally stable", reflecting that they are less likely to recidivate.

Figure 11. Cluster 1"low risk"

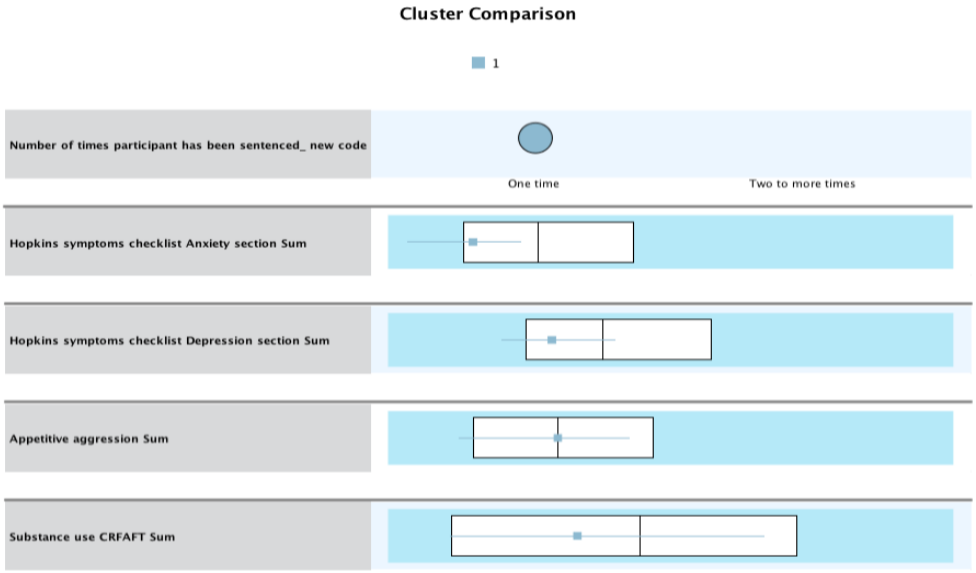


Figure 12 below, presents cluster 2 findings. Cluster 2 "*high risk*" constituted 26.5% of the population. This cluster consists of participants who have not recidivated. This was the second largest cluster group. Although this group has not recidivated, they present with high anxiety and high depression symptomology. This cluster presents with a moderate attraction to criminal behaviour and high substance use. This cluster presents with a high mental health and high substance use crisis. Substance use in combination with mental illness increases and explains criminality. High substance use also suggests that offenders within this cluster self-medicate with drugs.

Figure 12. Cluster 2 "high risk"

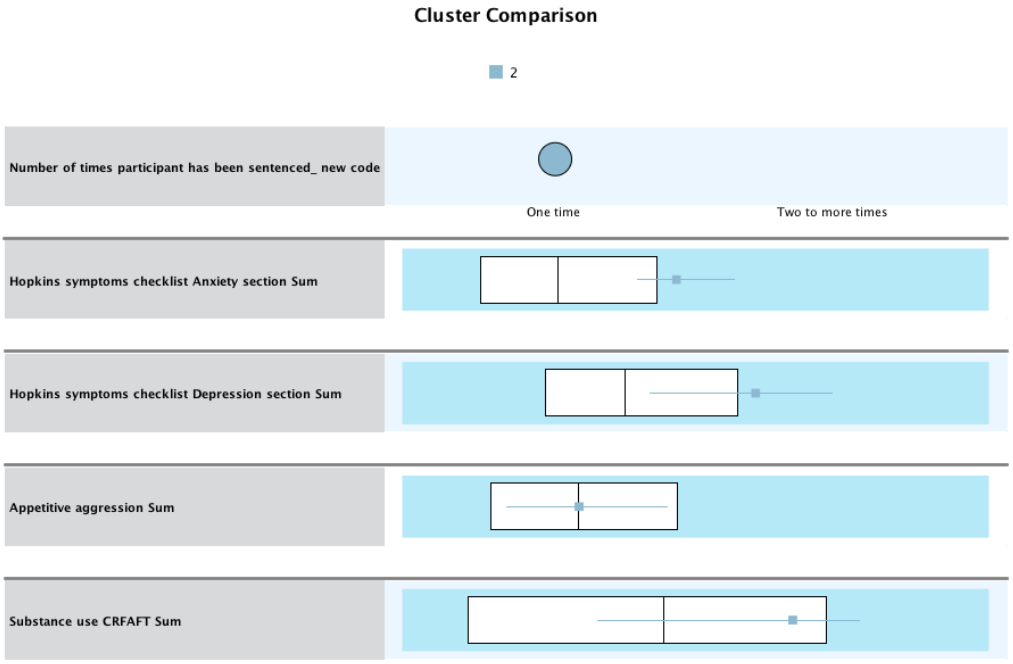


Figure 13 below, presents cluster 3 findings. Cluster 3 "*high risk*" was the third largest cluster group, which constituted 17.0% of the sample. They form part of the recidivist population. Overall, this cluster presents with a high anxiety symptomology, high depression, moderate high appetitive aggression and moderate high substance use. Similar to cluster 2, this group has a high mental health crisis, with a moderately high attraction to criminality and substance use. This group also has high-risk mental illness and substance use. Albeit small, the added appetitive aggression level, which increases criminality may explain recidivism among this cluster.

Figure 13. Cluster 3 “high risk”

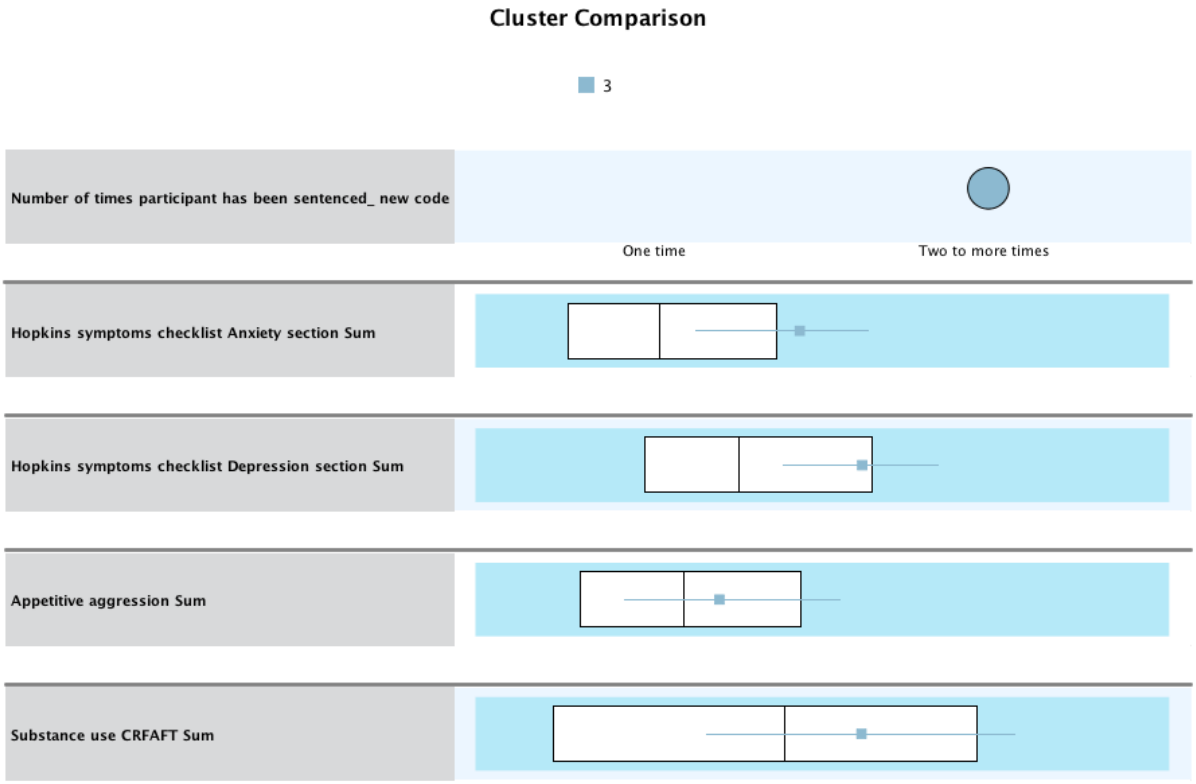


Figure 14 below, presents cluster 4 findings. Cluster 4 “*low risk*” which was the smallest cluster group and consisted of 13 participants, 9% of the sample. They also form part of the recidivist population. Overall, similar to cluster 1, cluster 4, has low anxiety disorder, low depression disorder symptomology, somewhat low appetitive aggression and moderate substance use. This group presents with mental stableness although, there is substance use, which may explain criminality.

Figure 14. Cluster 4 “low risk”

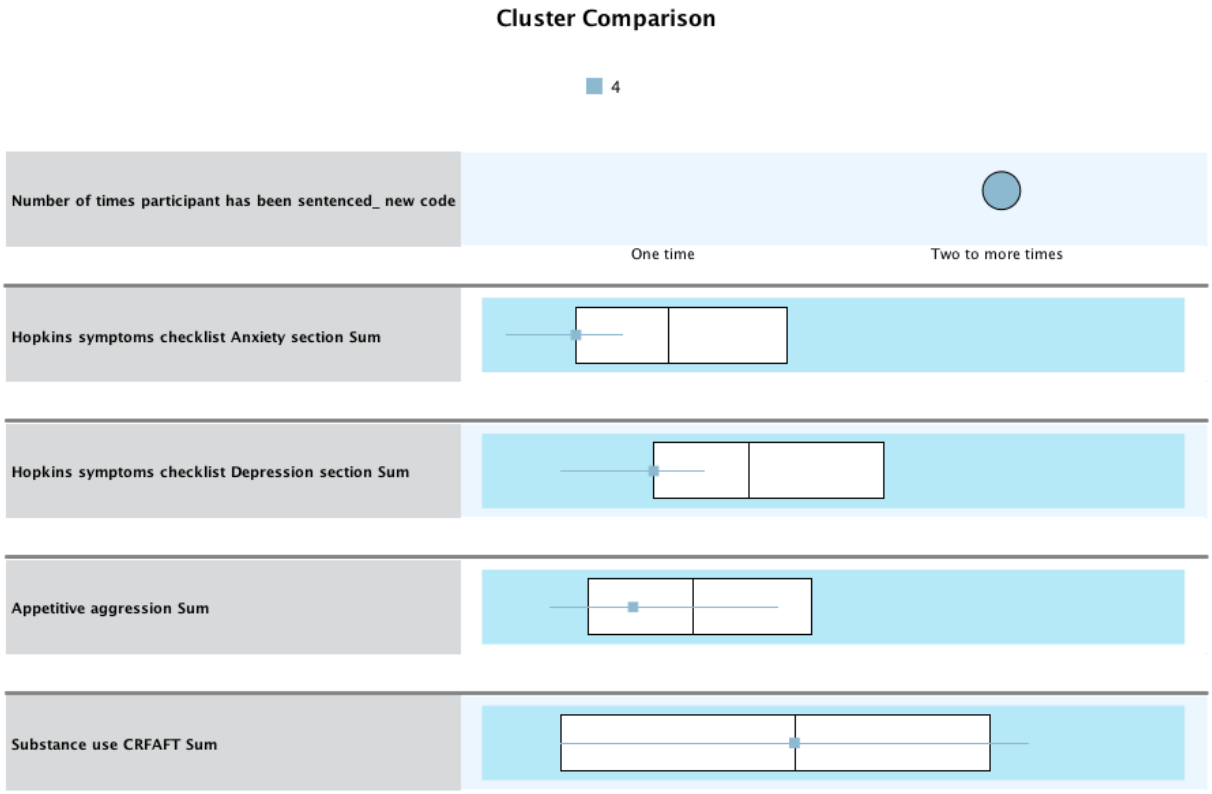


Table 36. Overall first model cluster findings

Cluster 1 (n=98- 42.6%) *Not recidivated- low risk*	**Cluster 2 (n=61- 26.5%)** *Not recidivated- high risk*	**Cluster 3 (n=39- 17.0%)** *Recidivated- high risk*	**Cluster 4 (n=32- 13.9%)** *Recidivated- low risk*
Low Anxiety Low Depression Moderate Appetitive aggression Moderate low Substance use	High Anxiety High Depression Moderate Appetitive aggression High Substance use	High Anxiety High Depression Moderately higher Appetitive aggression Moderately high Substance use	Low Anxiety Low Depression Somewhat low Appetitive aggression Moderate Substance use

Overall, as presented in Table 36 above, there are 4 clusters who mirror each other (cluster 1 and cluster4 vs. cluster 2 and cluster 3). Findings indicate that there are mainly two clusters in the dataset that present with some propensity towards recidivating (Cluster 2 and Cluster 3). Although mental health is not an explanatory variable, appetitive aggression plays a key role in the distinction of cluster 2 and cluster 3. Although the difference is not highly significant, it exists nonetheless, and this opens room for the further exploration of this phenomenon as a risk factor for recidivism. These factors are alluded and elaborated in the following chapter.

A two-step cluster analysis of the second model factors (i.e., attitudes, subjective norms, perceived behavioural control and intention to recidivate) was used to identify distinct clusters using SPSS 25. Figure 15 below, presents the Silhouette measure of cohesion and separation (0.5). It revealed a significant cluster quality, indicating that the model fits the data.

Figure 15. Second hypothesized Model summary

Figure 16, describes the least and most important predictor variable of recidivism along the second model. As portrayed, subjective norms as influenced by social norms is the most important predictor variable, followed by offenders perceived control to execute a criminal behaviour and get the expected results. Intention to recidivate is not a significant predictor of recidivism with the attitude towards criminal behaviour being the least important predictor of recidivism.

Figure 16. Second hypothesized model predictor variable importance

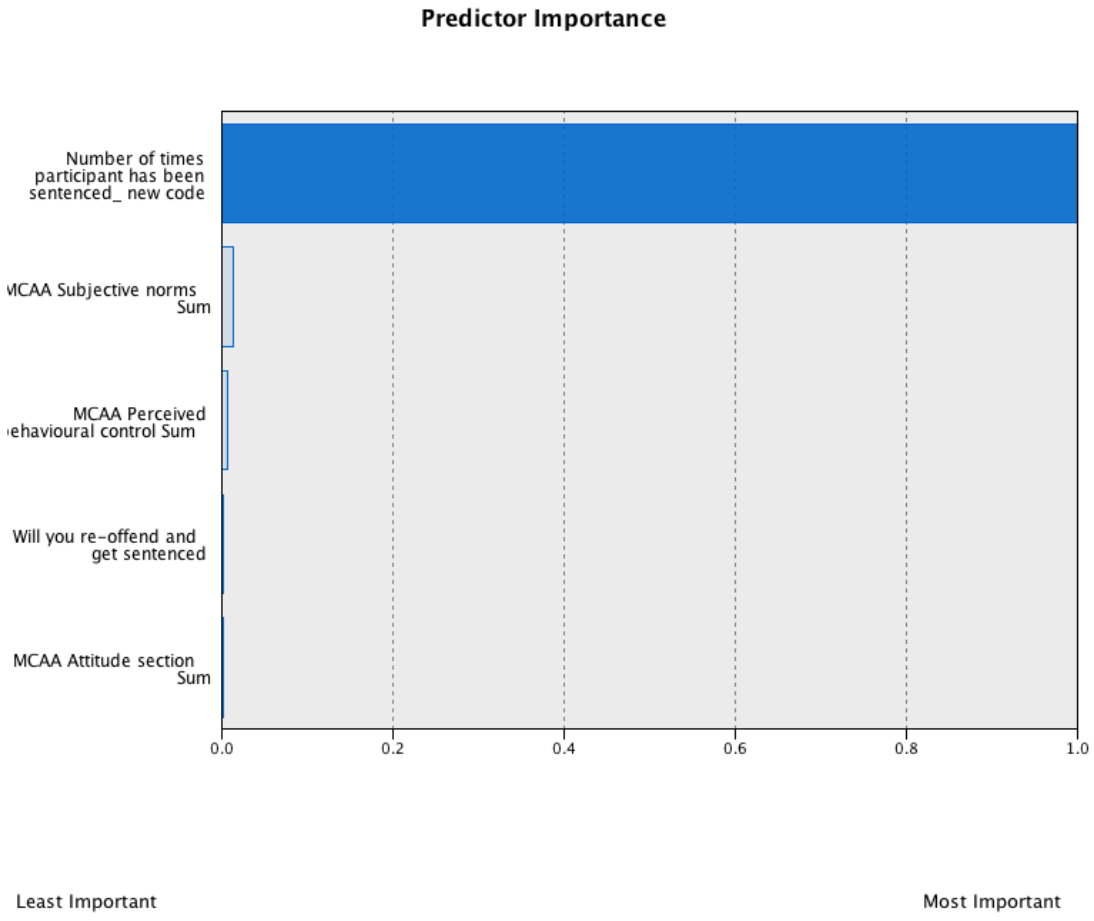


Figure 17. below, presents the prevalence of recidivism based on participant's pro-criminal attitudes, subjective norms as well as perceived control to execute a criminal behaviour and get expected/desired outcomes.

Figure 17. Cluster prevalence of recidivism likelihood based on participant's pro-criminal attitudes, subjective norms and perceived behavioural control.

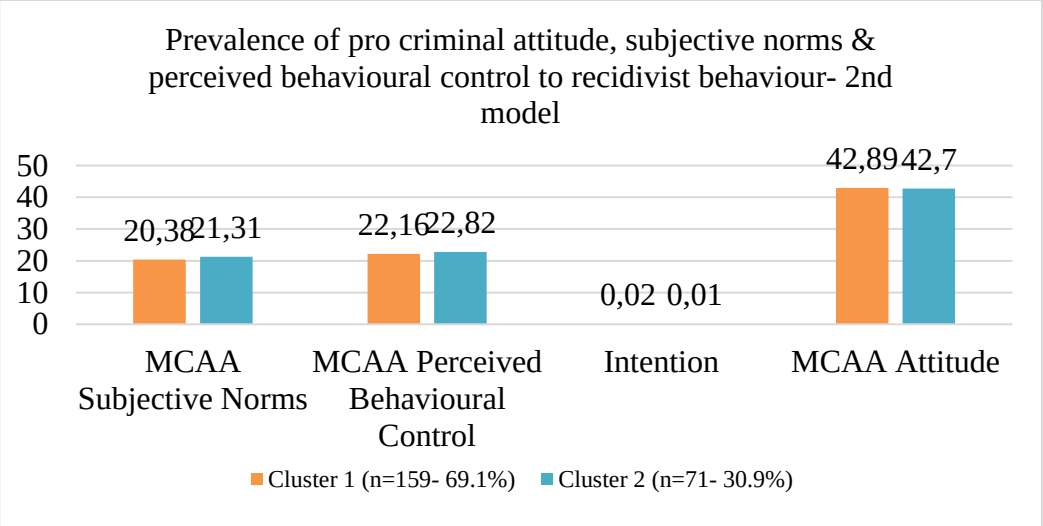


Figure 18 below, presents the second models' cluster one findings. Cluster 1 "Moderate *low risk*", is the largest cluster group consisting of 69.1% offenders who have not recidivated. This was the majority of the sample. Within this cluster, the likelihood of reoffending based on subjective norms as influenced by social norms is moderately high. The likelihood of re-offending based on perceived control to execute criminal behaviour and receive the expected outcome is moderate. Pro-criminal attitudes are moderate and participants in this cluster present with no intention to recidivate.

Figure 18. Cluster 1 "Moderate *low risk*"

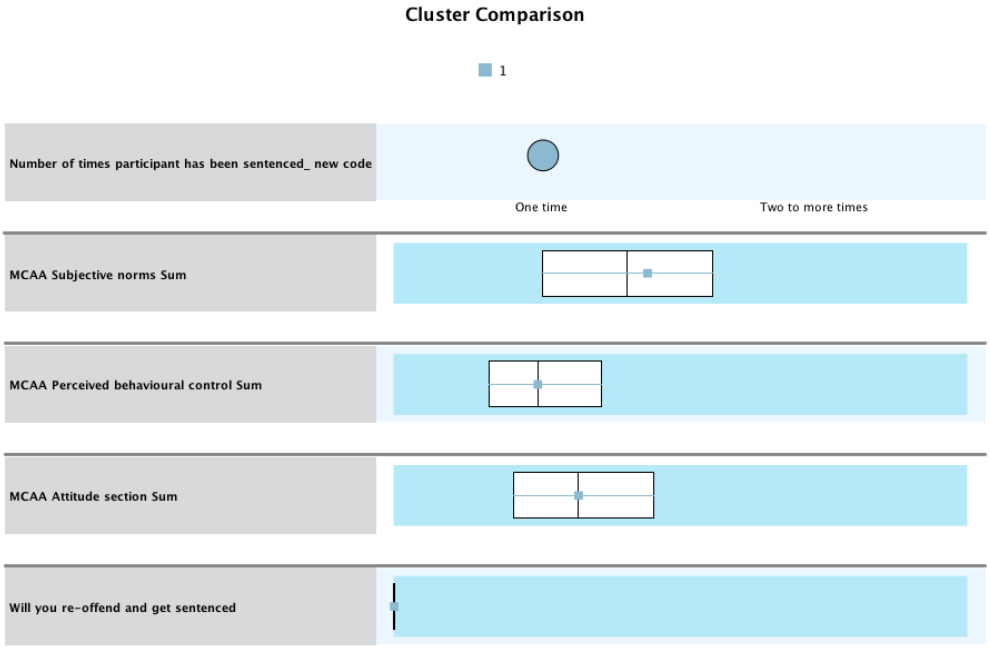


Figure 19 below, presents cluster 2 findings. Cluster 2 "*low risk*" is the second cluster group consisting of 30.9% of the sample. This population has recidivated. Among this cluster, the probability of recidivating based on subjective norms as influenced by social acceptance of criminality is moderate. The likelihood of re-offending based on perceived control to execute criminal behaviour and receive the expected outcome is also moderate. Attitudes that condone criminal behaviour are moderately low. Similar to the non-recidivist cluster, participants in this cluster have no intention to recidivate.

Figure 19. Cluster 2 findings

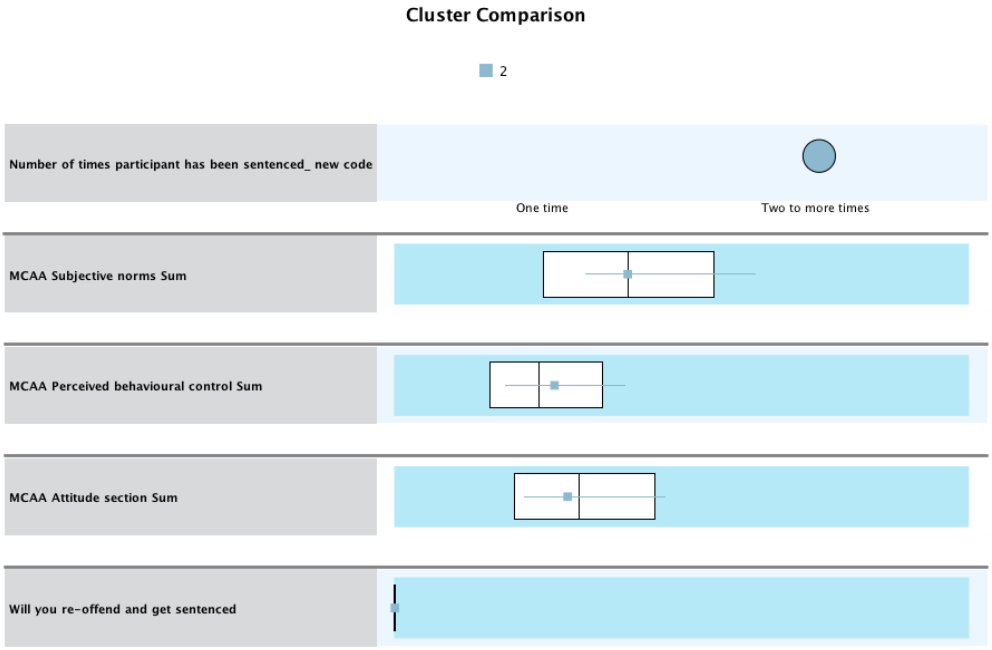


Table 37. Overall TPB model findings

Cluster 1 (n=159- 69.1%) *Not recidivated-moderate low*	**Cluster 2 (n=71- 30.9%)** *Recidivated-low risk*
Somewhat high subjective norms	Moderate subjective norms
Moderate perceived behavioural control	Moderate Perceived behavioural control
Moderate attitude	Somewhat low attitude
No intention to recidivate	No intention to recidivate

Overall, Table 37 shows that there are two clusters established (non-recidivist vs recidivist). Overall, findings indicate that although the model was fit for the data, the Theory of Planned Behaviour is not robust enough to predict recidivism, as there are no significant differences between the non-recidivist and recidivist clusters. In both clusters, intention does not play a role in the likelihood to re-offend. The lack of a significant difference between these two clusters fails to explain recidivism.

Overall, the series of regressions showed that central study variables do not single-handedly predict recidivism. This prompted the further exploration of the effect of the combination of these variables in predicting recidivist behaviour, which was done through cluster analysis. Albeit small, cluster analysis showed that the combination of the variables had some effect on recidivism. Although redundant, it is good practice to run additional tests to explore the correlation of variables using different analytical tests. As such, factor analysis is conducted to stablish factors that have the most effect in predicting recidivism.

5.15 Factor analysis

A factor analysis was conducted to determine what, if any, underlying structure exists for measures on the following 8 variables, substance use, anxiety, depression, appetitive aggression, pro-criminal attitude, perceived behavioural control, subjective norms and intention to recidivate. Principal components analysis was conducted utilizing a varimax rotation. Three criteria were used to determine the appropriate number of components to retain: eigenvalue, variance, and scree plot. The criteria indicated that retaining three components should be investigated. Thus, principal component analysis was conducted to retain three components and apply the varimax rotation. After rotation, the first component accounted for 32.2% of the variance, the second component accounted for 19.4% of the variance and the third component accounted for 12.8% of the variance. Component 1 included appetitive aggression (.777), subjective norms (.734), substance use (.724), perceived behavioural control (.564) and attitude (.441) loadings. Component 2 included anxiety (.888), depression (.887) and attitude (.317) loadings.

Component 3 included perceived behavioural control (.469), intention to recidivate

(.845) and attitude (.427) loadings. Items with the highest loadings were anxiety symptomology, depression symptomology, and the intention to recidivate (See table 38 and 39 below).

Table 38. Factor analysis- Total Variance Explained

	Initial Eigenvalues		**Rotation Sums of Squared Loadings**	
Component	Total	% of Variance	Total	% of Variance
1	2.576	32.200	2.188	27.351
2	1.551	19.386	1.715	21.438
3	1.028	12.845	1.251	15.643

Extraction Method: Principal Component Analysis.

Table 39. Factor analysis Rotated Component Matrix (a)

	Component		
	1	2	3
1. HSCAnxietySectionSum	.022	.888	-.067
2. HSCDepressionSectionSum	.080	.887	.091
3. AppetitiveAggressionSum	.777	.073	.048
4. SubstanceUseSum	.724	.118	-.176
5. MCAaAttitudeSectionSum	.441	.317	.472
6. MCAAPercBehavCntrlSectionSum	.564	.088	.469
7. MCAASubNorms_AssocitesSum	.734	-.087	.219
8. Will you re-offend and get Sentenced	-.051	-.068	.845

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 4 iterations.

5.16 Chi-square test of independence between demographic variables and clusters

Results that are significant along the first conceptual model

A chi-square test of independence was calculated comparing the frequency of the level of education among the four clusters established along the first model. A significant interaction was found (x^2 (9) = 18.26, $p < .05$). Participants with secondary

school education are consistently more likely to recidivate than offenders with no formal education, with primary school education and those with post-secondary school education in all clusters.

Results that are not significant along the first conceptual model

A chi-square test of independence was calculated comparing the frequency of gender among clusters established along the first model. No significant interaction was found (x^2 (3) =2.21, p >.05. Along the first model, males are not more likely to recidivate than females.

A chi-square test of independence was calculated comparing the frequency of race among the clusters established along the first model. No significant interaction was found (x^2 (9) =15.20, p >.05. There is no significant difference in the relationship between race and recidivism among the clusters.

Results that are significant along the second conceptual model

A chi-square test of independence was calculated comparing the frequency of the level of education among clusters established along the second model. A significant interaction was found (x^2 (3) = 10.68, p < .05). Participants with secondary school education are more likely to recidivate than participants with no formal education, primary school education and post-secondary school education.

A chi-square test of independence was calculated comparing the frequency of race between the two clusters established along the second model. A significant interaction was found (x^2 (3) =8.77, p < .05). In both clusters, black participants have a higher propensity recidivate than other races.

Results that are not significant along the second model

A chi-square test of independence was calculated comparing the frequency of gender among the clusters established along the second model. No significant relationship

was found (x^2 (1) = 1.49, p >.05. Therefore, indicating that males are not more likely to recidivate than females.

5.17 Summary

In conclusion, this study found that the majority of participants in this study are male (n= 226, 93%) while females accounted for 7% (n=19) of the participants. The majority of participants have secondary school education (n=171, 65.8%). All participants in this study 100% (n=280) present with anxiety symptomology. 99.6% (n=279) participants present with depression symptomology. 52.1% (n=146) participants present with appetitive aggression symptomology and 71.8% (n=201) substance use. The majority of participants in this study have not recidivated (n=171, 67.6%), while (n=82, 32.4%) have recidivated. This chapter presented the findings of the statistical tests used to test the hypotheses outlined in Chapter 4. In terms of the predictive usefulness of the Ecological Systems Theory and the Theory of Planned Behaviour, findings indicated that predictor variables do not single- handedly predict recidivism. however, the combination of the variables provide direction in terms of determining important combined risk factors for recidivism and the key role of appetitive aggression to recidivist behaviour. Chapter 6 provides a discussion of the results, recommendations for further research, and implications for impactful positive social change.

CHAPTER 6

DISCUSSION

The purpose of this study was to quantitatively explore the relationship between mental health and recidivism among incarcerated youth in South Africa and the role of substance use. Mainly, the present study explored risk factors that have been hypothesized to influence recidivism, including, anxiety, depression, appetitive aggression, substance use, attitude, subjective norms and perceived behavioural control utilizing SPSS. Although the mediating variables in this study cannot be interpreted in their entireness given their fit, it is possible to discuss the direction of the effects determined within the models. The Ecological Systems Theory and the Theory of Planned Behaviour were used to design this study and data collection instruments. The discussion concentrates on whether or not the theories are applicable in predicting recidivist behaviour in a South African context, in accordance with the objectives of the study.

Key findings from this study did not find a predominantly large rate of recidivism. Key findings found a high prevalence of mental illness. Among this population mental illness alone does not increases the probability of recidivism. However, the combination of mental illness, substance use and appetitive aggression, albeit small, showed a pattern or relationship with recidivism than either variable alone.

Key findings also did not find that attitude, subjective norms, perceived behavioural control and intention increases the likelihood of recidivism. The combination of attitude, subjective norms, perceived behavioural control and intention

also did not increase the likelihood of recidivism. Therefore, the Theory of Planned Behaviour does not predict recidivism among this offender population.

In this study, it was first hypothesized that there is a high prevalence of recidivism among the offender population. Findings indicate that the rate of recidivism among this offender population is 32.4%. such findings add to varying rates of recidivism reported in South Africa (Schoeman, 2003; Padayachee, 2008; Khwela, 2015; Karrim 2018).

Secondly, this study hypothesized that there is a high prevalence of mental illness among offenders. Results support this hypothesis as 100% (n=280) are symptomatic of anxiety, while 99.6% (n=279) are symptomatic of depression. This study, concurs previous research findings indicating that mental health issues are ubiquitous within centres of a correctional facility and sometimes more than in the general population, with the highest rates being found among female inmates (Steyn & Hall, 2015). These results further support Naidoo and Mkize (2012), who argued that offenders in a correctional facility population in Durban, South Africa, have undetected and untreated depressive and anxiety disorders (Naidoo & Mkize, 2012) as the presence and high prevalence of these mental issues were confirmed among this offender population.

Participants in this study included inmates who do not have a known psychiatric diagnosis, meaning that their mental health issues were not detected as the offenders encountered the criminal justice system such that they get the kind of treatment they need owing to their mental health issues. This study further affirms past research findings showing that some inmates have a long history of mental health problems, dating prior to incarceration, while others become ill and suicidal as a result of the stress and trauma associated with incarceration (Bantjes, Swartz &Niewoudt,

(2017). Such findings open room for the exploration of the "criminalization of mental illness" hypothesis because when offenders' mental health issues remain untreated, they tend to re-offend (Juvenile Law Center, 2015). The lack of diagnosis and treatment of mental health issues among the offender population also confirms the Judicial Inspectorate for Correctional Services' (2017/18) annual report, which indicated that centres of correctional service in South Africa are yet to sufficiently deal with the issue of mental illness among incarcerated offenders.

Thirdly, this study hypothesized that there is a relationship between mental illness and recidivism. The hypothesized relationship is not supported by the series of regressions. Results showed that anxiety and depression, independently, are not significantly correlated with recidivism, neither do they predict recidivism. Such findings contrast past research findings that have shown that mental health is an important predictor of recidivism (Bello, 2017). Although these results do not confirm previous literature on the predictive relationship between mental illness (particularly anxiety and depression) and recidivism, this relationship may be explained by other factors within society and within the criminal justice/judicial system that require further exploration.

Fourthly, this study hypothesized that there is statistically significant interaction between mental health and appetitive aggression resulting in recidivism. The hypothesized relationship is not supported by the series of regressions. As the interaction between mental iil-health and appetitive aggression do not predict recidivism. This suggests that the relationship between these variables is not linear or logistic. However, a combination of mental illness and appetitive aggression showed a pattern that had an effect on recidivism, which was only achieved through cluster analysis. Albeit small, the cluster analysis indicated that the high prevalence of

anxiety symptomology and depression symptomology and an increased level of appetitive aggression influenced recidivism. These support previous research indicating that in post-conflict areas with ongoing violence, a stronger attraction to violence influences more offences (Crombach, & Elbert, 2014). Where young males living in low-income areas of South Africa are likely to develop an attraction to aggression in response to exposure to violence, which increases the likelihood for continued violent behaviour (Hinsberger et al., 2016).

Fifth, it was hypothesized that there is a statistically significant relationship between substance use and recidivism. The hypothesized relationship is not supported by the series of regressions. Results showed that substance use independently, is not significantly correlated with recidivism, neither does it predict recidivism. Past studies have shown that there is a strong correlation between substance use and violent crime in South Africa, where serious and chronic juvenile offenders are more likely to abuse substances than any other type of juvenile offender (Shabangu, 2011). While this study confirms the prevalence of substance use among offenders, the use is not significantly correlated with recidivism.

Substance use among participants was measured as use within the past 6 months of the data collection period. A majority of participants in this study have been incarcerated for a period longer than a year. Owing to the prevalence of substance use among participants, inferences can be made about the availability of substances within the centres of a correctional facility. Van Zyl (2011) argued that although youth offenders are confined within correctional facility walls, illegal substances are readily available within centres of correctional service as youth offenders are very creative in finding ways to bring/receive, smuggle drugs into centres of correctional service (Van Zyl, 2011). While this study does not aim to

investigate substance use within centres of a correctional facility, it is important to point this out as it has implications for practice.

The sixth hypothesis was that there is a statistically significant interaction between mental health and substance use resulting in recidivism. Contrary to other research, this study did not find a statistically significant interaction between mental illness and substance use as the effect of substance use was not significantly associated with a greater likelihood of recidivism. The hypothesized relationship is not supported by the series of regression, as the interaction between mental health and substance use do not predict recidivism. This suggests that the relationship between these variables is not linear or logistic. These findings are not consistent with Baillargeon et al's (2009b) finding that inmates with major psychiatric disorders (e.g., major psychiatric disorder, major depression, bipolar disorder, and schizophrenia or schizophreniform disorder) and substance use disorder have an increased risk of multiple incarcerations compared to those with either mental illness alone or substance use disorder alone. The current study did not account for the severity of substance use, which may have affected the outcome as previous research confirms a positive relationship between exposure to traumatic events and PTSD symptom severity, appetitive aggression, the number of committed offences, severe drug and violence perpetration (Sommer, Hinsberger, Elbert, Holtzhausen, Kaminer, Seedat, and Weierstall, 2017).

On the other hand, a combination of anxiety symptomology, depression symptomology and substance use had an effect on recidivism, which was only achieved through cluster analysis. These findings support previous research that indicates that offenders living with mental illness and use substances have more criminal offences than offenders without a mental illness or substance use (Matejkowski, Drain,

Solomon & Mark, 2011). Other researchers have gone as far as arguing that mental illness and substance use are the leading predictors of recidivism among offenders (Buckmon, 2015).

The seventh hypothesis was that there is a statistically significant interaction between substance use and appetitive aggression resulting in recidivism. The hypothesized relationship is not supported by the series of regressions. The interaction between appetitive aggression and substance use do not predict recidivism. This suggests that the relationship between these variables is not linear or logistic. This is contrary to previous research, indicating a significant correlation between drug abuse and a higher attraction to violence and more committed offences (Sommer et al., 2017). It should be noted that this study did not measure drug use severity, which may have affected the outcome.

The second model hypothesized that the Theory of Planned Behaviour variables (attitudes, subjective norms, perceived behavioural control mediated by intention to recidivate) would predict recidivism. The hypothesized relationship is not supported by the series of regression and the cluster analysis. The interaction between attitudes, subjective norms, perceived behavioural control and intention to recidivate do not predict recidivism. Since beliefs and attitudes work interchangeably, the researcher had first hypothesized that a person's attitude towards something influences their behaviour towards it. Results showed that a person's attitude towards criminal behaviour had no significant influence on recidivating. This supports previous research, which showed that attitude alone do not predict recidivism (Jung, 2010).

Secondly, the researcher had hypothesized that a person's surrounding including peer influence and social norms would influence repeated criminal

behaviour. This hypothesis was founded on the premise that criminal attitude is transmitted, learned strengthened, and reinforced by criminal associates (Jung, 2010). Past research has showed that offenders often engage in criminal behaviour because of their association or social bonds with others that hold similar beliefs or behaviours (Cobbina et al., 2012). However, in this study, subjective norms did not predict recidivism. These findings are contrary to previous research, which has indicated that factors, such as substance abuse, pro-offending attitudes and deviant subculture involvement, are prevalent in recidivism (particularly for sexual offenders) (Gantana, Londt, Ryan & Roman, 2015).

Third, the hypothesis aimed to illustrate that having a high level of perceived behavioural control over executing a criminal offence and receive the expected or desired outcome would influence the likelihood to re-offend, or the reverse to be true. Current findings indicate that perceived behavioural control does not predict recidivism. Contrary to a study by Tolman, Edleson and Fendrich's (1996), whose findings indicated that for violent men who abused their female partners, perceived control was the most important variable in understanding batterers intention to abuse and their subsequent abusive behaviour.

Lastly, this study hypothesized that intention mediates the relationship between attitudes, subjective norms, perceived behavioural control and recidivism. Results indicated that intention had no significant correlation with these variables leading to a greater likelihood for recidivism. These findings are contrary to previous research, which indicated that attitude, subjective norms, and perceived behavioural control, made independent contributions to the prediction of intention to recidivate and that intention was significantly correlated with recidivism (Gonzalez, 2007).

Overall, the Theory of Planned Behaviour variables, are not able to predict recidivism. When variables were combined through a cluster analysis, results also showed little to no difference between the recidivist and non-recidivist clusters in terms of pro-criminal attitude, subjective norms and perceived behavioural control. Results indicate that intention did not mediate the relationship between attitude, subjective norms and perceived behavioural control, leading to a higher likelihood to recidivate. These findings are contrary to previous international research that found the Theory of Planned Behaviour to be useful in the prediction of recidivism (Gonzalez, 2007). In this study, it was not possible to distinguish among the offender population who is likely to recidivate and who is not, using the Theory of Planned of Behaviour as results were not significantly different for offenders who have recidivated and those who have not. This shows that criminal behavioural is a more complex behaviour, influenced by factors at three levels: within the person, within the proximal context and within the distal context and requires further exploration.

Additional research findings attained through a chi-square test of independence indicated a significant relationship between education and recidivism among clusters established from the hypothesized ecological systems model. Such findings concur previous research by Tadi & Louw (2013) who identified education as one of the significant predictors of recidivism in South Africa. These findings are also consistent with previous research indicating that offenders often lack education, which results in challenges to securing employment, which ultimately leads to a lack of economic independence (Lockwood, Nally, Ho, & Knutson, 2012; Makarios, Steiner, & Travis, 2010). Past research also asserts that offenders released back into the community after incarceration often recidivate due to their inability to secure sustainable employment because of their lower levels of education (Buckmon 2015).

Among clusters in the first model, no significant correlation was found between sex, race and recidivism which is contrary to previous research findings (Tadi & louw, 2013; Reisig, Bales, Hay & Wang, 2007).

Among clusters established using the Theory of Planned Behaviour model, key findings showed a significant correlation between the level of education and recidivism as well as race and recidivism. This study had an overwhelming 91% of African people and confirmed that compared to other racial groups black people are at greater risk for arrest and re-offence (Tadi & Louw, 2013). A report by the Department of Correctional Services Annual report (2016/17) showed that the offender population by race was 79% blacks, 18% coloured, 2% white, and 1% Asian/Indian. Such statistics indicate a high black representation within centres of correctional facility. That being said, South Africa predominantly has African/Black people as the majority of the population, which must also be considered when looking at racial representation in correctional facilities (Pillay, 2019).

The current study did not find sex/gender to be a significant predictor of recidivism among the established clusters. In this study, men represented an overwhelming 93% of the sample as this study had a relatively small number of women, which may have contributed to the failure for the models to identify an association between gender and recidivism (Buckmon, 2015). Generally, the female offender population in South Africa is small but it exists.

In conclusion, this chapter detailed a description of the data and discussed the results of the study. Research findings were related to the hypothesized Ecological Systems Theory model, which demonstrated some relationship with recidivism as some evidence suggests that the combination of anxiety symptomology, depression symptomology, appetitive aggression and substance use as a pattern of risk. Results

also showed the effect of appetitive aggression and substance use, thus highlighting the need for the further exploration of recidivism risk factors with larger and more diversified offender populations. In this study, the Theory of Planned Behaviour model failed to predict recidivism. The subsequent chapter details the conclusions and recommendations emanating from the findings in this research.

CHAPTER 7

CONCLUSION

The overall aim of this study was to investigate the relationship between mental health and recidivism among incarcerated youth offenders in a correctional facility and the role of substance use. This chapter presents key findings, main conclusions and recommendations of the study, in relation to the specific objectives of the research, as outlined in the first chapter.

This study examined the ability of the Ecological Systems Theory and the Theory of Planned Behaviour's to predict the likelihood of recidivism among offenders. This study confirmed that mental health, appetitive aggression and substance use single-handedly have no significant relationship with recidivism, neither do they single-handedly predict recidivism. However, the combination of these variables have an effect on recidivism. Simply put, offenders with a high mental health crisis, who use substances and have an increased attraction to crime, tend to recidivate.

This study also found that attitude, subjective norms, perceived behavioural control and intention have no association with recidivism neither did they predict recidivism. Each variable alone and when all variables were clustered did not predict recidivism. These findings are important from an applied perspective because social service providers should be able to identify exactly when differences in offence rates emerge.

This study embarked on research in an area that is largely neglected in penal discourse in South Africa. While Judicial Inspectorate for Correctional Services (2012/2013) has certainly admitted that the inability for correctional centres to respond to the

mental health needs of offenders is a problem, not enough attention has been given to resolving it. This study found a high prevalence of mental health issues among youth offenders incarcerated at a correctional centre in Durban, South Africa. Findings also indicate that the combination of mental health issues, appetitive aggression and substance had an effect on recidivism, which highlighted the need for future studies to explore the mental health needs of offenders and how they impact on their behaviour.

This study also showed that appetitive aggression played a key role in criminal and recidivist behaviour among youth offenders. This study also highlighted the need to further explore racial and gender differences in the pathway to recidivism and mental health needs of men and women.

Additionally, this study did not find the Theory of Planned Behaviour model useful in the prediction of recidivism as attitudes, perceived behavioural control, subjective norms and intention did not increase the likelihood of recidivism. The researcher concludes that perhaps attitude change over time, with more diversified groups would make for a better predictor than attitude measured at one particular time.

This study found that the combination of anxiety, depression, appetitive aggression and substance use had an effect on recidivism. On the other hand, this study did not find the Theory of Planned Behaviour model useful in the prediction of recidivism as attitudes, perceived behavioural control, subjective norms and intention did not show the likelihood for increased recidivism. This was the first study to explore these concepts in relation to recidivism in the South African context. Thus, future studies could further explore these concepts in relation to offending behaviour and recidivism. Future studies could also explore these concepts with more diverse populations and bigger populations.

Overall, this research concludes that intervention strategies that address recidivism risk factors need to integrate a specific understanding of the role of mental health on recidivism and the role of substance use and appetitive aggression on the relationship between mental health and recidivism. Addressing the mental health needs of youth offenders may significantly improve the mental health status of youth offenders and ultimately reduce recidivism leading to the rehabilitation and restoration of offenders.

7.1 Recommendations for future research

There is a myriad of challenges faced by the Department of Correctional Services in the rehabilitation of offenders leading to reduced recidivism rates, which requires additional research to address these challenges. In this study, a combination of anxiety, depression, appetitive aggression and substance use differentiated between the non-recidivist and recidivist group although the significance was by a small but important margin, with appetitive aggression playing a key role in distinguishing the likelihood for recidivism among the non-recidivist and recidivist group. This suggests that future studies should explore the likelihood of re-offence based on a combination of risk factors. The Department of Correctional Services has to the make the screening for mental illness, substance abuse and attraction to crime a first point of assessment and intervention, it has to be conducted as youth offenders encounter the criminal justice system, prior to incarceration. Such practices could help mitigate shortfalls of Section (1B) of the Criminal Procedure Act 51 of 1977. Where the responsibility to prove mental health or the lack thereof, is integrated as part of the risk-need assessment and not required from the party who raises the issue.

Appetitive aggression played a key role in distinguishing recidivist from non-recidivist, which suggest that youth offenders may require interventions that address attraction to criminal behaviour owing to their propensity for recidivism when appetitive aggression, mental health issues and substance use are combined. More studies exploring the effects of appetitive aggression on recidivism with more diverse and bigger youth offender population sizes need to be conducted so as to get more definitive results.

Current findings show that there is a prevalence of mental health issues among the offender population. Therefore, inferences can be made about the criminalization of mental illness but cannot be confirmed with the current data. Thus, future studies can explore the criminalization of mental illness hypothesis as a proxy to the criminalization of blackness hypothesis as current data did not allow for the exploration of both phenomena's.

This study looked at the mental health of offenders but did not explore the criminal justice system as adjudicators of offenders who may or may not have sensitivity towards mental health such that the ecology of offenders who encounter the system is taken into account. Where the focus is mostly put on system responses instead of risk-needs. Generally, beliefs within the retributive justice systems have allowed the severity of a presented offence to guide decision-making rather than the risk-needs of the offender or the risk to the public for further harm (Onifade, Wilkins, Davidson, Campbell & Petersen, 2011). This represents a shift in focus from the delinquent to punishment for their delinquency. It also reflects an assumption that all criminal behaviour requires a formal response from the justice system, which belies evidence suggesting the vast majority of delinquents desist from crime as part of the maturation and social learning process (Moffit, 1993; Bonta, 1996 as cited in Onifade, Wilkins, Davidson, Campbell & Petersen, 2011).

The focus on system responses can be referred to as system reactivity instead of Risk-Need Responsivity (RNR), which possibly lowers the excessive use of valuable police, court, and correction resources on youth better served by other systems (Onifade, Wilkins, Davidson, Campbell & Petersen, 2011). In this regard, recommendations are made for testing the Risk-Need Responsivity (RNR) Model in a South African context.

There was a failure for the Theory of Planned Behaviour to predict recidivism. Both recidivist and non-recidivist groups did not have significant differences in how they measured on pro-criminal attitudes, both groups had no intention to recidivate, yet had different recidivism outcomes. Future studies could explore gender and race-specific pro-criminal attitudes over a period of time with a more diverse group so as to determine the effect of race and gender as well as a change in attitude over time.

Another factor that could be explored further is the severity of substance use in association with recidivism, as this could not be examined in the current study. Additionally, recidivism can be explored in relation to particular crimes or group crimes (arranged by level of severity) so to determine the effect of crime type, crime severity and attraction to those crimes on recidivism.

7.2 Implications for Social Work practice

Implications of this study to social work practice speak to lobbying, campaigning and advocating for the evaluation of evidence led policy to ensure that the rights and responsibilities of people are met (Dunk 2007). To publicise information about best practice models and approaches and lure governments' attention to what is happening in South Africa and among youth offenders as far as mental health is concerned, which may have an impact on recidivist behaviour among youth offenders in South Africa.

Social workers are in the best place to advocate for changes, policy development, programme formulation and implementation that will deliver the best possible outcomes for rehabilitation and reintegration and mental health among communities (Dunk 2007).

One major implication of this study is the movement towards improving the mental health assessment process among offenders in order to be more mental health-responsive. Mental health screening, diagnosis and treatment would improve the mental health outcomes offenders and help improve the effectiveness of rehabilitation programs as they would be responding to mental health needs and ultimately improve public safety through higher responsivity to rehabilitation services leading to recidivism reduction. Moreover, policies that regulate mental health treatment should be put in place pre-in and post-incarceration.

System responses are rarely individualized or need-based, resulting in rather generalized programming divided by the intensity of servicing through formal probation for severe offences or diversion through informal probation for relatively minor offences. Moreover, systems have been slow to evaluate or systematically assess the effectiveness of this generalized response to delinquency (Lowenkamp & Latessa, 2005). Social workers within the criminal justice system can play a crucial role in implementing the testing of the risk-need-responsivity model, which is more focused on the individual needs of the offender.

Additionally, Social Workers could incorporate the Afrocentric perspective (Asante, 2001). The Afrocentric perspective would serve as a good supplement to the Risk-Need-Responsivity model as the Afrocentric perspective tackles historical, social, psychological and spiritual ideals that are context and population-specific (Asante, 2001:3).

Additionally, dynamic factors like education and substance use associated with

offending and represent areas in an individual's life that can be changed. Such areas are useful to target areas in rehabilitative efforts as they can be changed (Onifade, Davidson, Campbell, Turke, Malinowski & Turner, 2008). Interventions should focus on academic success, and assisting youth offenders with aggression issues as well as substance use issues.

References

Abdulkarim, Y. (2012). An analysis of Socio-Economic Impact of Imprisonment in Nigeria. *Developing Country Studies*, *2*, 148-152.

Adams, K. (1992). *Adjusting to prison life* (From *Crime and Justice: A Review of Research,* 16: 275-360, Michael Tonry, ed.--See NCJ-140392).

Adeyemi, A. A. (2007). The problem of imprisonment in the Nigerian penal system, In Ademola O Popoola & Ebenezer OI Adodo (eds) Current Legal Developments in Nigeria: Essays in Memory of Professor J.D. Ojo.

Agboola, C. (2016). Memories of the 'inside': Conditions in South African women's prisons. *SA Crime Quarterly*, 56, 19-26.

Africa Check (2017). Overcrowding, disease, and torture: The state of South African prisons {fact sheet}. University of the Witwatersrand, Johannesburg.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl., & J. Germany: Springer. Beckman (Eds.), *Action-control: From cognition to behaviour*, 11-39. Heidelberg.

Ajzen, I., & Madden, T. J. (1986). Prediction of goal directed behaviour: Attitudes, intentions and perceived behavioural control. Journal of Experimental Social Psychology, 22, 453-474.

Ajzen, I. (1988). Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. In L. Berkowitz (Ed.), *Advances in experimental social psychology.* San Diego, CA: Academic Press.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice Hall.

Ajzen, I. (1991). *The theory of planned behavior.* Organizational behavior and human decision processes, 179-211.

American Psychiatric Association. (1994). Committee on Nomenclature and Statistics.

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington, DC: American Psychiatric Association

American Psychiatric Association. (2000). Diagnostic and Statistical manual of mental disorders (4th ed). Washington, DC. Doi:10.1176/appi.books.9780890423349.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

Anaraki, N.R. & Boostani, D. (2014). Living in and living out: a qualitative study of incarcerated mothers' narratives of their children's living condition. *Quality & Quantity*, 48(6), 3093-3107.

Anderson, C. A. & Bushman, B. J. (2002). Human aggression. *Annu. Rev. Psychol*, *53*:27–51

Andrews, D. A. & Bonta, J. (1998). The Psychology of Criminal Conduct. Cincinnati, OH: Anderson Publishing Co.

Arditti, J.A., Lambert-Shute, J. & Joest, K. (2003). Saturday morning at the jail: Implications of incarceration for families and children. *Family Relations*, 52(3), 195-204.

Artz, L., Hoffman-Wanderer, Y. & Moult, K. (2012). Women, crime and incarceration: Exploring pathway of women in conflict with the law. Research Paper. Gender, Health & Justice Research Unit. Faculty of Health Sciences. University of Cape Town, South Africa.

Asante, M. K. (2001). Afrocentricity: The theory of social change. Chicago, Peoples Publishing Group.

Babbie, E. (2016). The Practice of Social Research (4th Ed). Cengage Learning, USA.

Babbie, E. (2007). *The practice of social research*. Belmont, CA: Thomson Learning.

Babbie L, & Mouton J (2009). *The Practice of Social Research*. 12th ed. Wardsworth publishing: 436-440.

Babbie, E. R. (2010). *The Practice of Social Research*. 12th ed. Belmont, CA: Wadsworth Cengage.

Babbie, E. R. & Rubin, A. (2010). *Research Methods for Social Work.* Cengage Learning

Babbie, E. R. (2-14). *The Basics of Social Research*. 6th ed. Belmont, CA: Wadsworth Cengage.

Badejogbin, O. A. (2015). Sentencing Reforms in a Postcolonial Society. Dissertation, Department of Public Law, University of Cape Town: South Africa.

Baillargeon, J., Bingwanger, J., Penn, J. V., Williams, B. A., & Murray, O. J., (2009a). Psychiatric disorders and repeat incarcerations: The revolving prison door. *American Journal of Psychiatry, 166*, 103-109. doi:10.1176/appi.ajp.2008.

Bandura, A. (1977). Social Learning Theory. New York: General Learning Press.

Bantjes, J. Swartz, L. & Niewoudt, P. (2017). Human rights and mental health in post-apartheid South Africa: lessons from health care professionals working with suicidal inmates in the prison system. *BMC International Health and Human Rights, 17*:29 DOI 10.1186/s12914-017-0136-0

Bartlett, J. E., II; Kotrlik, J. W.; Higgins, C. (2001). "Organizational research: Determining appropriate sample size for survey research" (PDF). Information Technology, Learning, and Performance Journal 19: 43–50.

Bartol, C.R., & Bartol, A.M. (2012). Introduction to forensic psychology: Research and application. Thousands Oaks, CA: Sage Productions.

Barrett, D., Katsiyannis, A., Zhang, D., & Zhang, D. (2014). Deliquency and recidivism: 72 A multicohort, matched-control study of the role of early adverse experiences, mental health problems, and disabilities. J*ournal of Emotional and Behavioral Disorders, 22*, 3-15. doi:10.1177/1063426612470514.

Baron, R.A. & Byrne, D. (1987). Social psychology: Understanding human interaction. (5th

ed.) Massachusetts: Allan & Bacon.

Baradon, T., Fonagy, P., Bland, K., Lenard, K. & Sleed, M. (2008). New Beginnings – An experience-based programme addressing the attachment relationship between mothers and their babies in prisons. *Journal of Child Psychotherapy*, 34(2), 240-258.

Bello, M. (2017). Reducing Recidivism in Africa and the South African Model: a Legal and Criminological Overview. *International Journal of Scientific Research in Humanities, Legal Studies & International Relations, 2*: 22-32

Benatar, S. (2014). The state of our prisons and what this reveals about our society. *S Afr Med J, 104*:613–4.

Bennett, P., & Bozionelos, G. (2000). Theory of planned behaviour as a predictor of condom use: A narrative review. Psychology. Health and Medicine, 5, 307-327.

Beuro of Justice Statistics. (2005). Prisoners in 2005. Available at https://www.bjs.gov

Beuro of Justice Statistics. (2006). Prisoners in 2006. Available at https://www.bjs.gov

Bloom, B., Owen, B., & Covington, S. (2004). Women offenders and the gendered effects of public policy. Review of Policy Research, 21, 31-48.

Blue, C. L. (1995). The predictive capacity of the theory of reasoned action and the theoryof planned behaviour in exercise research: An integrated literature review. Residential Nursing Health, 8, 105-121.

Boldero, J., Moore, S., & Rosenthal, D. (1992). Intention, context and safe sex: Australian adolescents' response to AIDS. Journal of Applied Social Psychology, 22, 1374-1396.

Botha, R., Louw, D. & Loots, S. (2016). Psychopathy and its association with demographic variables in a South African female offender context. *Acta Criminologica: Southern African Journal of Criminology*, 29(2), 1-21.

Broderick, C. (1971). Beyond the five conceptual frameworks: A decade of development in family theory. *Journal of Marriage and the Family*, *33*, 139–160.

Bronfenbrenner, U. (1977, 1979). *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, Massachusetts: Harvard University Press. (ISBN 0-674-22457-4)

Bronfenbrenner, U. (1994). Ecological models of human development. *In International Encyclopedia of Education, 3, 2nd ed.).* Oxford: Elsevier.

Buckmon, L. (2015). Predictors of recidivism for offenders with Mental Illness and Substance Use Disorders. Dissertations, Walden University: United States.

Burns, J. K. (2011). The mental health gap in South Africa: A human rights issue. *The Equal Rights Review, 6*:99–113.

Bushman, B. J. & Anderson, C. A. (2001). Is it time to pull the plug on the hostile versus instrumental aggression dichotomy? *Psychol. Rev. 108*:273–79.

Calhoun, G. B., Glaser, B. A., & Bartolomucci, C. L. (2001). The juvenile counselingand assessment model and program: A conceptualization and intervention for juvenile delinquency. *Journal of Counseling & Development, 79*, 131–141.

Celinska, K. & Siegel, J.A. (2010). Mothers in trouble: Coping with actual or pending separation from children due to incarceration. *The Prison Journal*, 90(4), 447474.

Chambers, A.N. (2009). Impact of forced separation policy on incarcerated postpartum mothers. *Policy, Politics & Nursing Practice*, 10(3), 204-211.

Charkoudian, L., Cosgrove, B.L., Ferrell, D.P. & Flower, S.M. (2012). The role of family and pro-social relationships in reducing recidivism. *Corrections Today*, 74(4), 9497.

Chen, M. K. & Shapiro, J. M. (2007). Do Harsher Prison Conditions Reduce Recidivism? A Discontinuity-based Approach. *American Law and Economics Review, 9*: 1–29, https://doi.org/10.1093/aler/ahm006

Chikadzi, V. (2017). Challenges facing ex-offenders when reintegrating into mainstream society in Gauteng, South Africa. *Social Work/Maatskaplike Werk, 53*, 287-300.

doi:http://dx.doi.org/10.15270/52-2-569

Cicchetti, D. (1990). Developmental psychopathology and the prevention of serious mental disorders: Overdue detente and illustrations through the affective disorders. In P. Muehrer (Ed.), Conceptual research models for prevention of mental disorders (pp. 215-254). Rockville, MD: National Institute of Mental Health.

Creswell, J. W. (1998). *Qualitative inquiry research design: Choosing among five traditions.* Thousand Oaks: Sage.

Crombach, A., & Elbert, T. (2014). The benefits of aggressive traits: A study withcurrent and former street children in Burundi. *Child Abuse & Neglect, 38*, 1041-1050. http://dx.doi.org/10.1016/j.chiabu.2013.12.003

Cobbina, J., Huebner, B. & Berg. M. (2012). Men, women and post-release offending: an examination of the nature of the link between relational ties and recidivism. *Crime and delinquency 58*: 331-361.

Constitution of the Republic of South Africa. Act 108 of 1996. Pretoria: Governmentprinter.

Crime statistics South Africa (2014-2015). Accessible via: www.crimestatssa.com

Crime statistics South Africa (2014-2015). Accessible via: www.crimestatssa.com Criminal Procedure Act 51 of 1977. (1977). Government Gazette, Pretoria: Government Printer. July 1977. Available at: http://www.justice.gov.za/legislation/acts/1977-051.pdf (accessed on: 25 September 2013).

Criminal Procedure Second Amendment Act. No. 75 of 1995. Pretoria: Government Printers. 21 September 1995. Available at: http://www.saflii.org/za/legis/num_act/cpsaa1995322/ (accessed on: 3 May 2014).

Cronk, B. (2017). How to Use SPSS Statistics: A Step-By-Step Guide to Analysis and Interpretation (9th Ed). Routledge, New York, USA.

Degenhardt, L., & Hall, W. (2006). Is cannabis use a contributory cause of psychosis? *Canadian Journal of Psychiatry, 51*: 556-565.

Day, D. M. & Wanklyn, S. G. (2012). Identification and Operationalization of the Major Risk Factors for Antisocial and Delinquent Behaviour among Children and Youth. National Crime Prevention Centre (NCPC): Ryerson University Toronto, Ontario.

De Vos**,** A. S., Strydom, H., Fouché, C. B., & Delport, C. S. L. (2005). *Research at Grassroots. 3rd ed*. Pretoria: Van Schaik.

De Vos, A. S., Strydom, H., Fouche, C.B. & Delport, C.S.L. (2011). Research at grass roots for the social sciences and human service professions. 4th Edition. Van Schaik Publishers.

Department of Correctional Services, South Africa. (1998). Correctional Services Act 111 of 1998. Government Gazette, 401(19522). Pretoria: Government Printers.

Department of Correctional Services. (2016/2017). *2016/2017 Annual Report*. Available from: www.dcs.gov.za/wp-content/uploads/2016/08/DCS-Annual-Report-20122013.pdf [Accessed on 15 February 2016].

Department of Correctional Services. (2005). The White Paper on Corrections in South Africa. Department of Correctional Services. Government Printers, Pretoria.

Department of Correctional Services. (2013). *2012/2013 annual report*. Available from: www.dcs.gov.za/wp-content/uploads/2016/08/DCS-Annual-Report-20122013.pdf [Accessed on 15 February 2016].

Department of Correctional Services. (2017). *2016/2017 Annual Report*. Available from: www.dcs.gov.za/wp-content/uploads/2016/08/DCS-Annual-Report-20122013.pdf [Accessed on 15 February 2016].

Dissel, A. & Kollapen, J. (2002). Racism and Discrimination in the South African Penal System. The Centre for the Study of Violence and Reconciliation, Braamfontein, Johannesburg.

Dissel, A. 2008. *Rehabilitation and reintegration in African prisons*. Pretoria: Human Science Research Council (HSRC) Press.

Dixey, R., Nyambe, S., Foster, S., Woodall, J. & Baybutt, M. (2015). Health promoting prisons – An impossibility for women prisoners in Africa? *Agenda*, 29(4), 95-102.

Dlamini, C. (1988). The Role of Chiefs in the Administration of Justice. Unpublished LLM Thesis, University of Pretoria: Pretoria.

Docrat, S., Lund, C., & Chisholm, D. (2019). Sustainable financing options for mental health care in South Africa: findings from a situation analysis and key informant interviews. *International journal of mental health systems, 13*: 4.

Du Preez, N. (2008). Imprisonment of black women with their babies and young children: A South African case study. *Child Abuse Research in South Africa, 9*, 1-10.

Dunk, P. (2007) Everyday sexuality and social work: locating sexuality in professional practice and education. *Social Work and Society, 5*: 1613-8953.

Dunk, P. (2007) Everyday sexuality and social work: locating sexuality in professional practice and education. *Social Work and Society, 5*:1613-8953.

Draper, C. E., Lund, C., Kleintjes, S., Funk, M., Omar, M., Flisher, A. J. & MHaPP Research Programme Consortium. (2009). Mental health policy in South Africa: development process and content. Mental Health and Poverty Project, Department of Psychiatry and Mental Health, University of Cape Town, Rondebosch, South Africa.

Elbert, T., Weierstall, R., & Schauer, M. (2010). Fascination violence – On mind and brain of man hunters. *European Archives of Psychiatry and Clinical Neuroscience, 260,* 100–105.

Everitt, B. S., Landau, S. & Leese, M. (2001). Cluster Analysis (4th Ed). Arnold.

Fanon, F. (1963). *The wretched of the earth.* A translation from the French by Richard Philcox, With a foreword by Homi K. Bhabha and a preface by Jean-Paul Sartre. Presence Africaine. United States of America.

Fazel S, Yu R. Psychotic disorders and repeat offending: systematic review and meta-analysis. *Schizophr Bull, 37*: 800–810r.

Flisher, A. J., Townsend, L., Chikobvu, P., Lombard, C., & King, G. (2010). Substance use and psychosocial predictors of high school dropout in Cape Town, South Africa. *Journal of Research on Adolescence, 20*: 237-255.

Flower, S.M. (2010). *Employment and Female Offenders, an Update of the Empirical Research*. US Department of Justice, National Institute of Corrections.

Fraser, A., Gatherer, A. & Hayton, P. (2009). Mental health in prisons: great difficulties but are there opportunities? *Public Health, 123*, 410-414.

Freeman, R. (2003). Can We Close the Revolving Door? Recidivism vs Employment of Ex-Offenders in the U.S. New York University Law School, United States.

Gantana, H., Londt, M.P., Ryan, J. & Roman, N. (2015). 'The Revolving Door': Factors that contribute to the recidivism of incarcerated sex offenders in the Western Cape. *Acta Criminologica: Southern African Journal of Criminology, 28*: 78-91.

Gaum, G., Hoffman, S. & Venter, J.H. (2006). Factors that influence adult recidivism: An exploratory study in Pollsmoor Prison. *South African Journal of Psychology*, *36*: 407-424.

Gay, L. R., &Airasian, P. (2000). *Educational Research: Competencies for analysis and application* (6th ed.). Upper Saddle River, NJ: Merrill, Prentice Hall.

Geen, R. G. (2001). *Human aggression* (2nd ed.). Oxford: Taylor & Francis.

Gluek, S. & Gluek, E. T. (1950). Unraveling Juvenile Delinquency. Cambridge, MA: Harvard University Press.

Gobodo-Madikizela, P. (2015). Psychological Repair: The Intersubjective Dialogue of Remorse and Forgiveness in the Aftermath of Gross Human Rights Violations. *Journal of the American Psychoanalytic Association, 63*, 1085-1123.

Gobodo-Madikizela, P. (2016). What Does It Mean to be Human in the Aftermath of Mass Trauma and Violence? Towards the Horizon of an Ethics of Care. *Journal of the Society of Christian Ethics, 36*: 64-91.

Gould, C. (2013). Does South Africa's criminal justice system deter offenders? [Online] Available: https://www.issafrica.org/iss-today/does-south-africas-criminaljustice-system-deter-offenders. [Accessed: 17/08/2014].

Guerino, P., Harrison, P. M. & Sabol, W. J. (2011). "Prisoners in 2010." NCJ 236096. Washington, DC: US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from http://www.bjs.ojp.usdoj.gov/index.cfm?ty=pbdetail\&iid=2230.

Global Corruption Barometer. (2015). People and corruption: Africa survey.

Godkin, G., & Kok, G. (1998). Theory of planned behavior: A review of its application to health related behaviors. *American Journal of Health Promotion, 11*, 87-96.

Gonzalez, P. L. (2007). An Investigation of Completion Status of a Cognitive Behavioral Intervention in a Population of Offenders on Probation (Doctoral dissertation).

Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime.* Stanford, CA: Stanford University Press.

Grant, J. (2017). A Study of the Influence of Social Media Use on the Present-Day Social Justice Movement: The Elements of Political Involvement Towards Protest Participation. Thesis, Department of political science: Clark Atlanta University, GA, USA.

Grinker, R. R. (1975). *The relevance of general systems theory to psychiatry*. In D. A. Hamburg and H. K. H. Brodie (Eds), American handbook of psychiatry, 6, 2nd Ed, New York: Basic Books.

Gxubane, T. (2006). An insight into recidivism among male awaiting-trial youth offenders and the implications for practice. *Social Work /Maatskaplike Werk 2006:42*: 307-326.

Gxubane, T. (2012). Contemporary social work issues: Crime and society course reading pack. Department of Social Development, University of Cape Town: South Africa.

Gxubane, T (2012). Exploration of residential diversion within a restorative justice framework in the management of young sex offenders in SA. Dissertation, Department of Social Development, University of Cape Town: South Africa.

Håkansson, A. & Berglund, M. (2012). Risk factors for criminal recidivism–a prospective follow-up study in prisoners with substance abuse. *BMC Psychiatry 12*:111. doi: 10.1186/1471-244X-12-111

Hanson, K. R. & Harris, A. J. R. (2000). Where do we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior, 27*, 6-35.

Hesbacher, P. T., Rickels, K., Morris, R. J., et al. (1980). Psychiatric illness in family practice. *Journal of Clinical Psychiatry, 41*:6-10.

Harrell, A. (1991). Evaluation of court-ordered treatment for domestic violence offenders: Summary and recommendations. Unpublished report prepared for the State Justice Institute.

Haralambos, M. & Holborn, M. (1995). Sociology: Theme and perspectives. London: Collins Educational.

Herbig, F. J. W. & Hesselink, A. E. (2012). Seeing the person, not just the number: Needs-based rehabilitation of offenders in South African prisons. *SA Crime Quarterly, 41*:29-37.

Heitzeg, N. A. (2015). 'Whiteness,' criminality, and the double standards of deviance/social control, *Contemporary Justice Review, 18*:197-214, DOI: 10.1080/10282580.2015.1025630

Hiday, V. A., & Wales, H. W. (2009). Criminalization of mental illness. In E. Vingilis & S. State (Eds.), Applied research and evaluation in community mental health services: An overview. Montreal: McGill-Queens.

Hinsberger, M., Sommer, J., Kaminer, D., Holtzhausen, L., Weierstall, R., Seedat, S., Madikane, S. & Elbert, T. (2016). Perpetuating the cycle of violence in South African low-income communities: attraction to violence in young men exposed to continuous threat. *European Journal of Psychotraumatology, 7*: 1-9.

Hirschi, T. (1969). Causes of delinquency. Berkeley, CA: University of California Press.

Hlatshwayo, C. (2002). Sentencing of Youth Offenders for Housebreaking with Intent to Steal: Practices and Attitudes of Magistrates and Prosecutors. Thesis (M.SocSc in Probation & Correctional Practice): Cape Town: University of Cape Town.

Hobbis, I. C., & Sutton, S. (2005). Are techniques used in cognitive behaviour therapy applicable to behaviour change interventions based on the theory of planned behaviour? *Journal of Health Psychology, 10*: 7-18.

Hoffman, S. (2008). Prisoner Rehabilitation in a Transforming South Africa. Center for the Study of Violence and Reconciliation, 1-12.

Hopkins, R. (2017). This Is What Life in Prison Is Really Like for Women in South Africa. *Wits Justice Project. Accessible via www.witsjusticeproject.co.za*

Hopkins, R. (2018). Why government should focus more on keeping people out of prison. City Press. Accessible via: https://www.witsjusticeproject.co.za

Huggins, V. C. (2015). A study of perceived preparation and self-efficacy among offenders in the department of correction and rehabilitation who are incarcerated at the Montgomery County Correctional Facility and participants of the reentry program. ETD Collection for AUC Robert W. Woodruff Library. Clark Atlanta University: USA.

John-Langba, J. (2007). The relationship of sexual and gender-based violence to sexual-risk behaviour among refugee women in Sub-Saharan Africa. World Health & Population: 1-12.

Judicial Inspectorate of Correctional Services. (2016/2017). *Annual Report 2016/2017: Prisoners and prisons*. Office of the Inspecting Judge, Cape Town.

Jules-Macquet, R. (2015). *Exploring female offender profiles and social Reintegration service delivery.* NICRO. South Africa.

Jung, H. (2010). Attitude, associates, and recidivism: relationship patterns among Allegheny county jail ex-inmates. Dissertation, University of Pittsburgh. USA.

Justice and Correctional Services. (2014). Department of Justice and Correctional Services 2014 Strategic Plan, Budget Process: Analysis by Content Advisor & Committee Researchers. Parliamentary monitoring group, SA. Accessible via: https://pmg.org.za/committee-meeting/17196/

Karrim, A. A. (2018). Focus on punishment fails society and inmates: Correctional services spend far too much on prisons and too little on rehabilitation and reintegration. Published in Business Day News, 12 April. South Africa.

Keane, R., Reaper-Reynolds, S., Williams, J. & Wolfe, E. (undated). Understanding Substances and Substance Use: A Handbook for Teachers. South Western Area Health Board: Dublin.

Keith, M. (1993a). 'From punishment to discipline?: Racism, racialization and the policing of social control' in Cross, M. and Keith, M. (eds.) Racism, the City and the State, London, Routledge.

Keith, M. (1993b). Race, Riots and Policing Lore and Disorder in a Multi-racist Society, London, UCL Press.

Khwela, M. N. (2014). A Need to Re-integrate Prisoners to the Community: A Case of Polokwane Medium B Prison, South Africa. *Athens Journal of Social Sciences, 1*: 145-155.

Khwela, M. N. (2015). Effects of Incarceration on Recidivism in South Africa. *Journal of Public Administration, 50*:407-413.

Kerig, P.K., Ward, R.M., Vanderzee, K.L., & Moeddel M. A. (2008). Posttraumatic stress as a mediator of the relationship between trauma and mental health problems among juvenile delinquents. *J Youth Adolesc, 38*: 1214-25.

Kiriakidis, S. P. (2008). Application of the Theory of Planned Behavior to Recidivism: The Role of Personal Norm in Predicting Behavioral Intentions of Re-Offending. *Journal of applied social psychology, 38:* 2210–2221.

Kingston, D., Olver, M., Harris, M., Wong, S., Bradford, J. (2015). The relationship between mental disorder and recidivism in sexual offenders. *Int J Forensic Ment Health, 14*:10–22. https://doi.org/10.1080/14999013.2014.974088

Kleijn WC, Hovens JE, & Rodenburg JJ. (2201). Posttraumatic stress symptoms in refugees: assessments with the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist-25 in different languages. *Psychol Rep, 88*: 527-532.

Krestev, J., Prokipidis, P. & Sycaninias, E. (2002). The psychological effects of imprisonment.

Kristof-Brown, A.L., Zimmerman, R.D., & Johnson, E.C. (2005). Consequences of individuals' fit at work: A meta-analysis of person–job, person–organization, person–group, and person–supervisor fit. *Personnel Psychology, 58*, 281–342.

Lamberti, J. (2007). Understanding and preventing criminal recidivism among adults with psychotic disorders. *Psychiatr Serv, 58*: 773–781. https://doi.org/10.1176/ps.2007.58.6.773.

Lekalakala, E. R. (2016). A comparative penological study on recidivism. Thesis, Corrections management, University of South Africa.

Li, D., Chu, C. M., Goh, J. T. L., Ng, I. Y. H., & Zeng, G. (2015). Impact of childhood maltreatment on recidivism in youth offenders: A matched-control study. *Criminal Justice and Behavior*. doi:10.1177/0093854815598598.

Li, F. & Godinet, M. T. (2014). The impact of repeated maltreatment on behavioral trajectories from early childhood to early adolescence. Children and Youth Services Review *Elsevier, 36*:22-29.

Lievore, D. (2004). Prosecutorial decisions in adult sexual assault cases: An Australian study. Canberra: Australian Government Office of the Status of Women.

Lockwood, S., Nally, J. M., Ho, T., & Knutson, K. (2012). The effect of correctional education on post release employment and recidivism: A 5-year follow-up stud in the State of Indiana. *Crime & Delinquency, 58,* 380-396. doi: 10.1177/0011128712441695

London, L. (1999). Addressing the legacy of the Dop System: Tackling alcohol abuse among South African farm workers. SAHealthInfo. Archived from the original on 26 March 2012. Retrieved 23 October 2018.

Lund. C., Boyce, G., Flisher, A. J., Kafaar, Z. & Dawes, A. (2009). Scaling up child and adolescent mental health services in South Africa: Human resource requirements and costs. *Journal of Child Psychology and Psychiatry, 50*: 1121-1130

Lund, C., Kleintjes, S., Campbell-Hall, V., Mjadu, S., Petersen, I., Bhana, A., Kakuma, R., Mlanjeni, B., Bird, P., Drew, N., Faydi, E., Funk, M., Green, A., Omar, M. & Flisher,

A. J. (2008). *Mental health policy development and implementation in South Africa. Phase 1 Country Report*, Mental Health and Poverty Project, University of Cape Town, Cape Town. Available at: http://www.who.int/mental_health/policy/development/SA%20Country%20Report%20-%20Final%20Draft%20Jan%202008.pdf.

Lund, C., Kleintjies, R, Flisher, A. J. MHaPP Research Programme Consortium. (2009). Public sector mental health systems in South Africa: inter-provincial comparisons and policy implications. *Soc Psychiatry Psychiatr Epidemiol, 45*, 393-404. doi: 10.1007/s00127-009-0078-5.

Lund C, Forsman A, Anckarsater H, Nilson T. (2012). Early criminal recidivism among mentally disordered offenders. *Int J Offender Ther Comp Criminol, 56*:749–768. https://doi.org/10.1177/0306624X11411677.

Luyt, W. F. M. & Du Preez, N. (2010). A case study of female incarceration in South Africa. *Acta Criminologica*, *23*:88–114.

Makarios, M. Steiner, B. & Travis, L. F. (2010). Examining the Predictors of Recidivism Among Men and Women Released from Prison in Ohio. *Criminal Justice and Behavior, 37*:1377-1391.

Mallie, A. L., Viljoen, J. L., Mordell, S., Spice, A., & Roesch, R. (2011). Childhood abuse and adolescent sexual re-offending: A meta-analysis. *Child & Youth Care Forum*, *40*, 401-417.http://dx.doi.org/10.1007/s10566-010-9136-0

Maltz, M. (1984, 2001). Recidivism. Dissertation, Department of Criminal Justice. University of Illinois: Chicago: United States.

Mare, R. (2011). The constitutional validity of section 78(1b) of the criminal procedure act 51 of 1977 with regard to section 9 of the constitution of the republic of South Africa, 1996. Dissertation. University of Pretoria: South Africa. Accessible via:

https://www.iol.co.za

Masutha, M. (2018). Masutha says that South African prisons at 137% occupancy.

Matarazzo, J. D. (1980). Behavioral health and behavioral medicine: frontiers for a new health psychology. *Am Psychol, 35*: 907-17.

Matejkowski, J., Draine, J., Solomon, P., & Salzer, M.S. (2011). Mental illness, criminal risk factors and parole release decisions. *Behavioral Science and the Law, 29*: 528-553. doi:10.1002/bsl.991.

Mausbach, B. T., Semple, S. J., Strathdee, S. A., Zians, J. & Patterson, T. L. (2007). Efficacy of a behavioral intervention for increasing safer sex behaviors in HIV-negative, heterosexual methamphetamine users: Results from the Fast-Lane study. *Annals of Behavioral Medicine, 34*: 263–274. [PubMed: 18020936]

Mausbach, B. T., Semple, S. J., Strathdee, S. A., Zians, J. & Patterson, T. L. (In Press). Efficacy of a behavioral intervention for increasing safer sex behaviors in HIV-negative, heterosexual methamphetamine users: Results from the Fast-Lane study. Annals of Behavioral Medicine.

Mersky, J. P., & Topitzes, J. (2009). Comparing early adult outcomes of maltreated and non-maltreated children: A prospective longitudinal investigation. *Children and Youth Services Review, 32*: 1086–1096.

McGuire, J., Bilby, C. A., Hatcher, R. M., Hollin, C. R., Hounsome, J. & Palmer, E. J. (2008). Evaluation of structured cognitive—behavioural treatment programmes in reducing criminal recidivism. *J Exp Criminol. 4*: 21–40.

McGrath N, Nyirenda M, Hosegood V, Newell ML (2009) Age at first sex in rural South Africa. *Sex Transm Infect, 85*: 49–55.

McManus, M., Alessi, N. E., Grapentine, W. L. & Brickman, A. (1984). Psychiatric Disturbance in Serious Delinquents. *Journal of the American Academy of Child & Adolescent Psychiatry, 23*: 602–615.

Mills, J.F., & Kroner, D.G. (1999). Measures of criminal attitudes and associates. Unpublished User Guide.

Mills, J. F., Kroner, D. G., & Hemmati, T. (2004). The Measures of Criminal Attitudes and Associates (MCAA): The prediction of general and violent recidivism. *Criminal Justice and Behavior, 31*, 717-733.

Mills, J. F., Loza, W., & Kroner, D. G. (2003). Predictive validity despite social desirability: Evidence of the robustness of self-report among offenders. *Criminal Behaviour and Mental Health, 13*, 140-150.

Ministry of justice. (2012). Comparing International Criminal Justice Systems. London: National Audit office.

Montoya, C. C. (2009). Examining the Experiences of Men Who Have Recidivated: A Qualitative Analysis. Dissertation. School of professional psychology: Pacific University, Hillsboro, Oregon.

Morgan N, Del Fabbro G. (2018). Factors associated with recidivism at a South African forensic psychiatric hospital. *S Afr J Psychiat, 24*, a1125. https://doi.org/10.4102/sajpsychiatry. v24i0.1125.

Muntingh, L. (2009). *Reducing prison violence: implications from the literature for South Africa.* University of the Western Cape, South Africa: Civil Society Prison Reform Initiative.

Muntingh, L & Gould, C. (2010). Towards an understanding of repeat violent offending. Institute for Security Studies paper 213. www.makepeacehappen.net

Murray, C. (1995), Interrogating justice: Research on race and gender bias in the South African court system. *International Journal of Discrimination and the Law, 1*: 29-38.

Naidoo, S., & Mkize, D. L. (2012). Prevalence of mental disorders in a prison population in Durban, South Africa. *African Journal of Psychiatry*, *15*: 30-35.

Ngabonziza, O & Singh, S (2012). Offender reintegration programme and its role in reducing recidivism: exploring perceptions of the effectiveness of tough enough programme. *Acta Criminologica: Southern African Journal of Criminology CRIMSA 2011 Conference Special Edition,* (2): 87-102.

Norwood, M. (Undated). Criminogenic needs: Definition and Risk Factors. Introduction to Criminal Justice notes. www.study.com

Onifade, E., Davidson, W., Campbell, C., Turke, G., Malinowski, J. & Turner, K. (2008). Predicting recidivism in probationers with the Youth level of service case Management inventory (YLS/CMI). *Criminal Justice and Behavior, 35*: 474-483

Padayachee, V. 2008. Department of Correctional Services Republic of South Africa: creating paths for offender reintegration conference. Pretoria: Hotel Kameldift East. [Online] Available: https://www.issafrica.org/crimehub/uploads- /Offender Reintegration-Conference-Report4.pdf [Retrieved: 20/11/2011].

Patel, V., Lund, C., Hatheril, S., Plagerson, S., Corrigall, J., Funk, M., et al. (2010). Mental disorders: equity and social determinants. In: Blas E, Kurup AS, editors. Equity, social determinants and public health programmes. Geneva: World Health Organization: 115-34.

Peacock, R. (2006). Identity development of the incarcerated adolescent: a comparative analysis (Unpublished Doctoral Thesis, University of Pretoria).

Petersen, I., Bhana, A., Campbell-Hall, V., Mjadu, S., Lund, C., Kleintjies, S. et al. (2009). Planning for district mental health services in South Africa: A situational analysis of a

rural district site. *Health Policy and Planning Advance Access, 24*: 140–150. http://dx.doi.org/10.1093/heapol/czn049

PEW report (April, 2011). State of recidivism: The revolving door of America's Prisons. PEW research center. Accessible via: https://www.pewtrusts.org

Pickard, H. & Fazel, S. (2013). Substance abuse as a risk factor for violence in mental illness: some implications for forensic psychiatric practice and clinical ethics. *Curr Opin Psychiatry, 26*: 349-54. doi: 10.1097/YCO.0b013e328361e798

Pillay, S. (2019). Lived experiences of motherhood in correctional facilities. Dissertation, Department of Criminology, University of the Free State: South Africa.

Powell, C., Marzano, L. & Ciclitira, K. (2017). Mother-infant separations in prison: A systematic attachment-focused policy review. *The Journal of Forensic Psychiatry & Psychology, 28*, 274-289.

Presence, C. (2018). Masutha says South African prisons at 137% occupancy. Iol news. Accessible via: www.iol.co.za

Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M.R. & Rahman, A. (2007). No Mental Health without Mental Health. *Lancet, 370*, 859-877. http://dx.doi.org/10.1016/S0140-6736(07)61238-0

Prins, S. J., Skeem, J. L., Mauro, C., & Link, B. G. (2015). Criminogenic factors, psychotic symptoms, and incident arrests among people with serious mental illnesses under intensive outpatient treatment. *Law and Human Behavior, 39*, 177-188. http://dx.doi.org/10.1037/lhb0000104

Prinsloo, J. H. (1996). An exploration of recidivism in South Africa. *Acta Criminologica, 9*: 40-57.

Prinsloo, J. (2013). Offenders with mental disorders in a south African prison population: profiling the behavioural characteristics on mental illness. *J Psychol Afr, 23*:133–8.

Prinsloo, J. & Hesselink, A. (2015). A quantitative analysis of female crime trends in Gauteng, South Africa. *Acta Criminologica: Southern African Journal of Criminology, 28*: 67-76.

Putkonen, A., Ryynänen, O. P., Eronen, M. & Tiihonen, J. (2007). Transmission of violent offending and crime across three generations. *Social Psychiatry and Psychiatric Epidemiology, 42*: 94–99.

Plüddemann, A., Flisher, A. J., Mathews, C., Carney, T. & Lombard, C. (2008a). Adolescent methamphetamine use and sexual risk behaviour in secondary school students in Cape Town, South Africa. *Drug and Alcohol Review, 27*: 687-92.

Recidivism. (2015). Encyclopedia Britannica. Retrieved from http://www.britannica.com/EBchecked/topic/493522/recidivism

Reisig, M., Bales, W. D., Hay, C., & Wang, X. (2007). The effect of racial inequality on black male recidivism. *Justice Quarterly, 24*, 408-434. https://doi.org/10.1080/07418820701485387

Reppucci, N. D., Fried, C. S., & Schmidt, M. G. (2002). Youth violence: Risk and protective factors. In R. R. Corrado, R. Roesch, S. D. Hart, & J. K. Gierowski (Eds.), *Sereis I: Life and behavioural sciences, 324. Multi-problem violent youth: A foundation for comparative research on needs, interventions and outcomes* (pp. 3-22). Amsterdam, Netherlands: IOS Press.

Russell, K. C. (2017). Recidivism Rates Among Juveniles With Mental Illness. Walden Dissertations and Doctoral Studies. Walden University: USA.

Ryan, J. P. (2006). Dependent youth in juvenile justice: Do positive peer culture programs work for victims of child maltreatment? *Research on Social Work Practice, 16*, 511-519.

Ryan, J. P., Herz, D., Hernandez, P. M., Marshall, J. M. (2007). Maltreatment and delinquency: Investigating child welfare bias in juvenile justice processing. *Children and Youth Services Review, 29,* 1035-1050. http://dx.doi.org/10.1016/j.childyouth.2007.04.002

Saccomano, L. M. (2019). Defining the proper role of "offender characteristics" in sentencing decisions: a critical race theory perspective. *American Criminal Law Review, 56*: 1693-1734.

Sarkin, J. (2008). Prisons in Africa: An evaluation from a human rights perspective.

Saxena, S., Funk, M., & Chisholm, D. (2013). World Health Assembly adopts Comprehensive Mental Health Action Plan 2013–2020. *The Lancet, 381*, 1970-1971. http://dx.doi.org/10.1016/S0140-6736(13)61139-3

Schnittker, J., Massoglia, M. & Uggen, C. (2012). Out and Down: Incarceration and Psychiatric Disorders. *Journal of Health and Social Behavior, 53*: 448–64.

Schwartz, P. (2002). Going back inside. Mail & Guardian Supplement, p.1.

Schoeman, M.I. (2002). A classification system and an inter-disciplinary action plan for the prevention and management of recidivism. PhD dissertation. Pretoria: University of Pretoria.

Schoeman, M. (2003). A classification system and an inter-disciplinary action plan for the prevention and management of recidivism. (Doctoral thesis, University of Pretoria, South Africa). Retrieved from http://upetd.up.ac.za/thesis/available/etd-05312004-141418/unrestricted/00front.pdf

Schoeman, M. & Basson, M. (2009). The influence of imprisonment on infants and young children incarcerated with their mothers. Natl Inst Crime Prev Reintegration Offenders NICRO, Cape Town.

Second Chance Act of 2007 HR 1593 & Related Bill H. Con. Res. 270, S. 1060

Seedat, S., Stein, D. J., Jackson, P. B., Heeringa, S. G., Williams, D. R., Myer, L. (2009). Life stress and mental disorders in the South African Stress and Health Study. *South African Medical Journal, 99*:375– 382. [PubMed: 19588801].

Senser, B. (2017). Clinical Interventions that Reduce Recidivism among Female Offenders: A Systematic Review. Master of Social Work Clinical Research Papers. 783. http://sophia.stkate.edu/msw_papers/783.

Senthil, M., Vidyarthi, S. & Kiran, M. (2014). Family and Mental Illness. *Journal Of Humanities And Social Science (IOSR-JHSS), 19*: 32-37.

Shabangu, T. (2011). A Comparative Inquiry into The Nature of Violence and Crime In Mozambique And South Africa. Pretoria: IDASA.

Simourd, D. J., & Olver, M. E. (2002). The future of criminal attitudes research and practice. *Criminal Justice and Behavior, 29*: 427-446.

Simpson, G. (1993). *Explaining Endemic Violence in South Africa*. Published in German under the title, *Gewalt in Südafrika*, in *Weltfriedensdienst Quersbrief*, 3: 10-15.

Singh, S.B. 2016. Offender rehabilitation and reintegration: a South African Perspective. *J Soc Sci, 46*:1-10.

Singh, S. (2008). Towards Conceptual Clarity of Incarceration and Rehabilitation within the South African Criminal Justice System. Acta Criminologica: South African Journal of Criminology, SE (2): 59 – 77.

Siporin, M. (1980). Ecological Systems Theory in Social Work. *The Journal of Sociology & Social Welfare, 7*: Iss. 4, Article 4. Available at: http://scholarworks.wmich.edu/jssw/vol7/iss4/4

Skeem, J. L., Winter, E., Kennealy, P.J., Louden, J., & Tatar, J. (2014). Offenders with mental illness have criminogenic needs, too: Towards recidivisn reduction. *Law And Human Behavior, 38,* 212-224. Doi:10.1037/1hb0000054

Skelton, A. & Frank, C. (2001). Conferencing in South Africa: Returning to our Future. In: Morris, A. and Maxwell, G. (eds), Restorative Justice for Juveniles: Conferencing, Mediation and Circles. Oxford: Hart Publishing.

Smiley, C. J., & Fakunle, D. (2016). From "brute" to "thug": The demonization and criminalization of unarmed Black male victims in America. *Journal of Human Behavior in the Social Environment, 26*: 350–366.

Snyder, J. J. & Patterson, G. R. (1995). Individual differences in social aggression: A test of a reinforcement model of socialization in the natural environment. *Behaviour Therapy, 26*: 371-391.

Spjeldnes, S., & Goodkind, S. (2009). Gender differences and offender reentry: A review of the literature. *Journal of Offender Rehabilitation, 48*: 314-335. doi: 10.1080/10509670902850812

Stein, D. J. (2014). A new mental health policy for South Africa. *South African Medical Journal, 104*, 115–116.

Steyn, F. & Booyens, K. (2017). A profile of incarcerated female offenders: implications for rehabilitation policy and practice. *Acta Criminologica*: Southern *African Journal of Criminology, 30*: 33-54.

Steyn, F. & Hall, B. (2015). Depression, anxiety and stress among incarcerated female offenders. *Acta Criminologica: Southern African Journal of Criminology, Special Edition* (1), 82-100.

Strategic plan, (2013/2014-2016/2017). Department of Correctional Services. The Republic of South Africa.

Statistics South Africa, (2015-2016). South African Statistics, 2015-2016. Pretoria: Statistics South Africa.

Stokols, D. S. (1996). Translating social ecological theory into guidelines for community health promotion. American Journal of Health Promotion, 10: 282-298.

Straus, M.A., Gelles, R., & Steinmetz. S. (1980). Behind closed doors: Violence in the American family. New York: Anchor Books.

Strydom, H. (2011). *Sampling in the quantitative paradigm. Research at grass roots.* Pretoria: Van Schaik Publishers, 222-235.

Sommer, J, Hinsberger, M, Elbert, T, Holtzhausen, L, Kaminer, D, Seedat, S, & Weierstall, R. (2017a). The interplay between trauma, substance abuse, and appetitive aggression and its relation to criminal activity among high-risk males in South Africa. *Addictive Behaviors, 64,* 29–34. https://doi.org/10.1177/ 2167702616658634.

Sutherland, E. H., & Cressey, D. R. (1978). Criminology (10th ed.). Philadelphia: Lippincott.

Tadi, F. N. & Lauw, D. A. (2013). First-time offenders versus recidivists: Demographic-risk variables. *Acta Criminologica: Southern African Journal of Criminology, 26*: 86-105.

Teicher, M. H. & Samson, J. A. (2013). Childhood maltreatment and psychopathology: A case for ecophenotypic variants as clinically and neurobiologically distinct subtypes. *Am J Psychiatry*, *170*: 1114–1133. [PubMed: 23982148]

Thame, M. (2011). Reading Violence and Postcolonial Decolonization through Fanon: The Case of Jamaica. *The Journal of Pan African Studies, 4*: 75-93.

The Republic of South Africa. (2000). *Department of Correctional Services.* Pretoria: Department of Correctional Service. South Africa.

The Republic of South Africa. Mental Health Care Act 17 of (2002). Government Gazette, Vol. 449. Cape Town. South Africa.

The Republic of South Africa. Criminal procedure Act Amendment 65 (2008). Government Gazette, Vol. 449. Cape Town. South Africa.

The Republic of South Africa. National mental health policy framework and strategic plan (2013-2020). Department: of health. Pretoria, South Africa. *Sur, Rev. int. direitos human, 5*:1983-3342.

The Republic of South Africa. The Judicial Inspectorate for Correctional Services annual report (2017/2018). South Africa.

The Republic of South Africa. National health policy guidelines for mental health in South Africa. (1997). Government Gazette, South Africa.

The Republic of South Africa. Mental health care Act 63 (2003). Government Gazette, South Africa.

The Republic of South Africa. Medicine and Related substances control Act 101 (1965). Government Gazette, South Africa.

The Republic of South Africa. Health professions Act, 1974). Government Gazette, South Africa.

The Republic of South Africa. Prevention of and treatment for substance abuse Act (1965). Government Gazette, South Africa.

The Republic of South Africa. Health professions Act (1974). Government Gazette, South Africa.

The Republic of South Africa. National Youth Commission Act, 1996 (Act 19 of 1996). Government Gazette, South Africa.

The Republic of South Africa. Prevention of and treatment for substance abuse Act 70 (2008). Government Gazette, South Africa.

The Republic of South Africa. Sexual offences Act. (2007). Government Gazette, South Africa.

The Republic of South Africa. National Drug Master Plan (2013-2017). Department of Social Development.

The South African Police Service. (2016/2017). Annual report. Department of the South African Police Service. Accessible via: https://nationalgovernment.co.za

Tlou, E. R. (2009). The application of the theories of reasoned action and planned behaviour to a workplace HIH/AIDS health promotion programme. Dissertation, University of South Africa. South Africa.

Tolan, P. & Guerra, N. (1994). What Works in Reducing Adolescent Violence: An Empirical Review of the Field. Institute of Behavioral Science, Regents of the University of Colorado.

Tolman, R. M., Edleson, J. L., & Fendrich, M. (1996). The applicability of the theory of planned behavior to abusive men's cessation of violent behavior. *Violence and Victims*, *11*: 341–354.

Townsend, L., Flisher, A. J. & King, G. (2007). A systematic review of the relationship between high school dropout and substance use. *Clin Child Fam Psychol Rev, 10*: 295-317.

United Nations World Drug Report. (2014). World drug report. United Nations, New York.

United Nations Office on Drugs and Crime. The United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules). (2015). General Assembly resolution.

Van Wyk, L. (2015). Restorative justice in South Africa: An attitude survey among legal professionals. Dissertation. The University of the Free State. South Africa.

Vogelman, L. (1990). The sexual face of violence. Johannesburg: Raven Press.

Weierstall, R. & Elbert, T. (2011). The Appetitive Aggression Scale-development of an instrument for the assessment of human's attraction to violence. *European Journal of Psychotraumatology, 2*: 1- 11. DOI: 10.3402/ejpt.v2i0.8430

Weierstall, R., Hinsberger, M., Kaminer, D., Holtzhausen, L., Madikane, S., & Elbert, T. (2013). The role of appetitive aggression in facilitating adaptation to a violent environment amongst former youth offenders. Peace and Conflict: *Journal of Peace Psychology, 19,* 138–149.

Weierstall, R., Haer, R., Banholzer, L. & Elbert, T. (2013). Becoming cruel: appetitive aggression released by detrimental socialisation in former Congolese soldiers. *International Journal of Behavioral Development, 00*:1-9.

Weiten, W. (2010). *Psychology themes and variations.* 8th ed. USA: Wordsworth.

Western, B. & Pettit, B. (2010). Incarceration and social inequity. Vol. 139(3) Dædalus 8.

White paper for the transformation of the health system in South Africa. (1997). Towards a national health system. Department of Health, South Africa.

WHO. Draft comprehensive mental health action plan 2013–2020. May 16, 2013 (accessed June 3, 2013). http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_10Rev1-en.pdf

White paper on remand detention management in South Africa (2014). Department of Correctional Services, South Africa. Accessible via: https://www.gov.za/sites/default/files/gcis_document/201607/white-paper-remand-detention-management-south-africaa.pdf

Williams, D. R., Herman, A., Stein, D. J., Heeringa, S. G., Jackson, P. B., Hoomal, H. & Kessler, R. C. (2008). Twelve-month mental disorders in South Africa: Prevalence, service use and demographic correlates in the population- based South African Stress and Health Study. *Psychological Medicine, 38,* 211–220.

Winokur, A., Winokur, D. F., Rickels, K. et al. (1984). Symptoms of emotional distress in a family planning service: stability over a four-week period. *British Journal of Psychiatry, 144,* :395-399.

Wood R. (2012). Right to care in South Africa.

https://www.facebook.com/rtcsa/posts/234287843340645 (accessed 14 July 2014).

World Health Organization (2011). Mental Health Atlas 2011. World Health Organization: Geneva.

World Health Organization. (2011). Global Burden of Mental Disorders and the Need for a Comprehensive, Coordinated Response from Health and Social Sectors at the Country Level. http://apps.who.int/gb/ebwha/pdf_files/ EB130/B130_9-en.pdf.

World Health Organisation. (2013-2020). Child and adolescent mental health. Accessible via: https://www.who.int/mental_health/maternal-child/child_adolescent/en/

World Health Organization (2008) Mental Health Gap Action Programme (mhGAP): scaling up care for mental, neurological and substance abuse disorders. Geneva: World Health Organization.

World Prison Brief. (2017). World prison brief data. Available at https://www.prisonstudies.org

Widom, C. S. & Maxfield, M. G. (2001). An update on the cycle of violence. U.S. Department of Justice, Office of Justice Program, National Institute of Justice; Washington, DC.

Wikoff, N., Linhorst, D. M. & Morani, N. (2012). Recidivism among Participants of a Reentry Program for Prisoners Released without Supervision. *Social Work Research, 36*: 289-299.

Wright, V. (2010). Deterrence in criminal justice: Evaluating certainty vs. severity of punishment. Available at http://www.sentencingproject.org/doc/deterrence%20briefing%20.pdf

Zinn, R. J. 2007. Incarcerated perpetrators of house robbery as a source of crime intelligence. From: http://bibinf.unisa.ac.za/infoweb/sbj-db-grp-placementslist.htm (accessed 27 September 2013).

Appendix A: Research questionnaire

INFORMED CONSENT FORM

UNIVERSITY OF CAPE TOWN, Faculty of Humanities
Department of Social Development

My name is Kwanele Shishane. I am a PHD Social Work student in the Department of Social Development at the University of Cape Town.
The study I am doing aims to **investigate the relationship between mental health and recidivism among youth offenders and the role of substance use.** In this regard, I would like to ask you some questions in relation to my study. The time it takes to complete the questionnaire will vary depending on how many sections of the questionnaire are relevant to you, but it will take approximately 25-45 minutes of your time.
Before you complete the questionnaire, I want to make sure you understand the following information about the study:

- All the information given on this questionnaire is strictly confidential and will be solely used for the intended purposes of this study. While the data collected will be used for research purposes, information that could identify you will never be publicly released in any research report or publication without your permission.
- Your participation is entirely voluntary. You may refuse to take part in this study, and you may stop at any time if you do not want to continue answering the questions. You also have the right to skip any particular question or questions if you do not wish to answer them.
- Feel free at any time to ask questions to clarify anything related to this questionnaire or study.

By signing below, I signify that I agree to participate in this study, and that my participation is entirely voluntary. I also understand that I can stop participating at any point should I not wish to continue. I also confirm that the purpose of the study has been explained to me. I understand that this is a research project whose purpose is not necessarily to benefit me personally in the immediate or short term. I also understand that the information I provide in this study will remain confidential.
Date:_____ Participant Signature:_____
With participants permission researcher and/or supervisor to countersign below if participant is not able to sign:
Signature:_ _____ Researcher
Supervisor
This study has been reviewed and approved by the ethical review committee of the University of Cape Town as well as the ethical review committee of the Department of Correctional Services.

Incwadi yesivumelwano

IYunivesithi yaseKapa,

Igama lami nginguKwanele Shishane. Ngingumfundi we-PHD kweze-Nhlalakahle eMnyangweni Wezokuthuthukiswa Komphakathi eNyuvesi yaseKapa.

Ucwaningo engilwenzayo luhlose ukuphenya ubuhlobo phakathi kwempilo yengqondo nokuboshwa ngokuphindaphindiwe kanye nendima edlalwa ukusetshenziswa kwezidakamizwa kulokhu. Ngakho-ke, ngingathanda ukukubuza imibuzo ethile ngokuphathelene nocwaningo lami. Isikhathi esizokuthatha ukuphendula lemibuzo sizohluka kuye ngokuthi zingaki izigaba zohlu ekufanele wena uziphendule, kodwa kuzothatha cishe imizuzu engu-25-45 yesikhathi sakho.

Ngaphambi kokuba uphendule lemibuzo, ngifisa ukuqinisekisa ukuthi uyaluqonda ulwazi olulandelayo mayelana nalolucwaningo:

• Lonke ulwazi olunikezayo kulocwaningo luzogcinwa luyimfihlo futhi luzosetshenziselwa kuphela izinhloso zalolu cwaningo. Yize noma ulwazi oluqoqiwe lizosetshenziselwa izinjongo zocwaningo, ulwazi olukwazi ukukhomba kuwena ngeke lukhishwe esidlangalaleni kunoma yimuphi umbiko wocwaningo noma incwadi ngaphandle kwemvume yakho.

• Ukubamba kwakho iqhaza kulolucwaningo luyisinqumo sakho ngokuphelele. Unganqaba ukuhlanganyela kulolu cwaningo, futhi ungama nganoma isiphi isikhathi uma ungasathandi ukuqhubeka uphendula imibuzo. Unelungelo lokudlula noma yimuphi umbuzo uma ungafisi ukuphendula.

• Zizwe ukhululekile nganoma yisiphi isikhathi ukubuza imibuzo, ukucacisa noma yini ehlobene nalemibuzo noma ucwaningo.

Ngokusayina ngezansi, ngibonisa ukuthi ngiyavuma ukubamba iqhaza kulolu cwaningo, nokuthi ukubamba kwami iqhazakuwukuzinikela ngokuphelele. Ngiyaqonda futhi ukuthi ngingakwazi ukuyeka ukubamba iqhaza nganoma yisiphi isikhathi uma sengizizwa ngingathandi ukuqhubeka. Ngiyaqinisekisa nokuthi injongo yocwaningo ichaziwe kimi. Ngiyaqonda ukuthi lolu ucwaningo okungeyona into ezongizuzisa ngandlela thize manje noma esikhathini esizayo. Ngiyaqonda nokuthi ulwazi engizolinika kulolucwanigno luzohlala luyimfihlo.

Usuku:_____Ukusayina kobambe iqhaza: _____

Ngemvume yobambe iqhaza, umcwaningi noma umphathi womncwaningi angasayina ngezansi uma ngabe obambe iqhaza engakwazi ukusayina:

Ukusayina:_ _____ Umncwaningi

Umphathi womncwaningi

Lolu cwaningo lubuyekeziwe lase lagunyazwa yikomidi elibhekelela ukuziphatha laseNyuvesi yaseKapa kanye nekomidi elibhekelela ukuziphatha loMnyango wokubuyiswa kwezimilo.

PART 1/ INGXENYE 1

PERSONAL DATA/ IMININGAWE NGAWE

The next section seeks to get some information about your background. Please answer honestly and remember there is no right or wrong answer.
Isigaba esilandelayo sifuna ukuthola ulwazi oluthile mayelana nomlando wakho. Ngicela uphendule ngobuqotho futhi ukhumbule ukuthi akukho mpendulo engamukelekile.

1.	What is your current age? Mingaki iminyaka yakho njenga manje?	
2.	What is your highest level of formal education achieved? Iliphi ibanga lemfundo ogcine kulona waliphasa?	☐ None/ Alikho nalinye ☐ Primary school/ Amabanga aphansi ☐ Secondary school/ Amabanga aphakeme ☐ Post-secondary school/ Ikolishi noma Inyuvesi
3.	What is your gender? Yini ubulili bakho?	☐ Male/ Isilisa ☐ Female/ Isifazane
4.	What is your race? Yini uhlanga lwakho?	☐ Black/Umnyama ☐ Coloured/Oxubile ☐ White/Umhlophe ☐ Indian/Indiya ☐ Asian/um-Asia ☐ Other/okuhlukile kulokhu, if other, please specify /uma owokuhlukile kulokhu, chaza uhlanga lwakho _____
5.	Are you married? Ushadile?	☐ Yes/ Yebo ☐ No/ Cha
6.	Do you have any biological children? Ingabe unabo abantwana abangabakho?	☐ Yes/Yebo ☐ No/ Cha if yes, how many children do you have? / Uma uphendule yebo, unabantnwana abangaki? _____
7.	In which province were you born? Wazalelwa kusiphi isifundazwe?	☐ KwaZulu-Natal ☐ Gauteng ☐ Western Cape ☐ Eastern Cape ☐ Limpopo ☐ Northern Cape ☐ Free State ☐ North West ☐ Mpumalanga
8.	In which prison ward are you in? Ungaphansi kwaliphi iwadi ejele?	☐ Maximum Security ☐ Medium Security A ☐ Durban Maximum correctional services ☐ Minimum Security ☐ Women's Prison

PART 2/ INGXENYE 2

HISTRORY OF IMPRISONMENT/ UMLANDO NGOKUBOSHWA KWAKHO

The following questions are going to ask you information in relation to your history of imprisonment. Please answer honestly and remember there is no right or wrong answer.

Imibuzo elandelayo izokubuza imininingwane maqondana nomlando wakho wokuboshwa. Ngicela uphendule ngobuqotho futhi ukhumbule ukuthi akukho mpendulo engamukelekile.

1. Is this your first time sentenced to prison?/ Ingabe uyaqala ukugwetshwa?
   Yes/ Yebo ☐ No/ Cha ☐
2. If you answered **NO** to the previous question, how old were you when you got sentenced for the first time? / Uma uphendule Cha kumbuzo ongaphezulu, wawuneminyaka emingaki ngenkathi ugwetshwa okokuqala?_____years/iminyaka
3. What were you imprisoned for the first time you got sentenced? / Wawugwetshelweni ngesikhathi ugwetshwa okokuqala?

   _____
4. Where were you imprisoned the first time you got sentenced? / Waboshwa kuliphi ijele ngenkathi ugwetshwa okokuqala?

   _____
5. Have you been sentenced more than once? / Usuke wagwetshwa ngokuphindiwe?
   Yes/Yebo ☐ No/Cha ☐
6. If you answered **YES** to the previous question, how many times have you been sentenced? / Uma uphendule Yebo kumbuze ongaphezulu, ingabe usugwetshwe kangaki?
   ☐ One time/Kanye ☐ Two times/Kabili ☐ Three times/Kathathu ☐ Four times/ Kane ☐ Five times/ Kahlanu ☐ More than Five times/ Ngaphezu kwesihlanu
7. What year were you sentenced? / Ugwetshwe ngamuphi unyaka? _____
8. How long have you been in this correctional facility? / Usube kulesi sikhungo isikhathi esingakanani?_____years/iminyaka_____months/izinyanga
9. What is the length of your current sentence? / Side kangakanani isigwebo sakho?_____years_____months
10. Will you re-offend and get sentenced? / Ingabe uzophinda wone ugwetshwe?
    Yes/Yebo ☐ No/ Cha ☐

PART 3/ INGXENYE 3

PSYCHO-SOCIAL INFORMATION

Many people have lived through or witnessed one or more very emotionally and psychologically stressful events at some point in their lives. Please let me know which of these you have been experiencing in the past **two** weeks. Please put an "X" where it applies to you.
Abantu abaningi sebeke behlelwa noma babona isimo noma izimo eziningi ezibuhlungu futhi ezibaphatha kabuhlungu emphefumulweni nasemqondweni ezimpilweni zabo. Ngicela ungitshele ukuthi kulokhu okulandelayo, yikuphi oke wazizwa unakho **kulamaviki amabili edlule.** Ngicela ufake u "X" lapho kuvumelana nawe.

	Have you experienced any of the following in the past two weeks? Uke wazizwa ngalendlela kulamaviki amabili adlulile?	**Not at all Cha nakancane**	**A little Kancane**	**Quite a bit Yebo noko**	**Extremely Ngokweqile**
1.	Suddenly scared for no reason Ungazelele uzizwe usaba ngale kwesizathu				
2.	Feeling fearful Uzizwe unokwesaba				
3.	Faintness, dizziness or weakness Uphelelwe amandla, unesiyezi noma ubuthakathaka				
4.	Nervousness or shakiness inside Unovalo noma ukungqhangqhazela ngaphakathi				
5.	Heart pounding or racing Ukubhakuzela kwenhliziyo noma ishaye ngamandla				
6.	Trembling Ukuthuthumela				
7.	Feeling tense or keyed up Uzizwe umzimba uqinile noma kungathi ubophene				
8.	Headaches /Uphethwe ikhanda				
9.	Spells of terror or panic for no reason/ Uzizwe unokwesaba ngokweqile noma ukuthuka ngale kwesizathu				
10.	Feeling restless, can't sit still Uzizwe ungenakuphumula futhi kungahlaleki ndawonye				
11.	Feeling low in energy, slowed down Uzizwe umoya wakho uphasi, ungenamdlandla futhi wenza kancane				

	Have you experienced any of the following in the past two weeks? Uke wazizwa ngalendlela kulamaviki amabili adlulile?	**Not at all Cha nakancane**	**A little Kancane**	**Quite a bit Yebo noko**	**Extremely Ngokweqile**
12.	Blaming yourself for things/ Uzisola ngezinto				
13.	Crying easily/ Ukhala kalula				
14.	Loss of sexual interest or pleasure Ukulahlekelwe ukulangazelela ucansi noma ukweneliseka yilo				
15.	Poor appetite/Overeating Ukungathandi ukudla/Ukudla ngokweqile				
16.	Difficulty falling sleep or staying asleep Kunzima ukulala noma ukuhlala uzumekile				
17.	Feeling hopeless about the future Uzizwe ungenalo ithemba ngekusasa lakho				
18.	Feeling sad/ Uzizwe udangele				
19.	Feeling lonely/ Uzizwe unomzwangedwa				
20.	Thoughts of ending your life/ Ube nemicabango yokuqeda impilo yakho				
21.	Feeling of being trapped or caught/ Uzizwe uvalelekile ungenakudabula				
22.	Worrying too much about things/ Ukhathazeka ngokweqile ngezinto				
23.	Feeling no interest in things/ Uzizwe ungena gqhozu lwezinto				
24.	Feeling everything is an effort/ Uzwe sengathi yonke into ingumthwalo				
25.	Feelings of worthlessness, feeling like a failure/ Uzizwe ungelutho, uzizwe uyisahluleki				

PART 4/ INGXENYE 4

EXPERIENCE OF COMMITTING CRIME

The following questions are about the experience of committing crime (i.e. homicide/murder, rape, statutory rape, aggravated assault, kidnapping, robbery, burglary, arson, theft, motor-vehicle theft/hijacking). People who have been involved in crime often report experiences like this. I would like to know if your experiences are similar. Please remember that there is no right or wrong answer and answer honestly. Please put an "X" where it applies to you.

Imibuzo elandelayo imayelana nokwenza ubugebengu njengokubulala ngokungenanhloso/ukubulala ngenhloso, ukudlwengula, ukuzimbandakanya ngokocansi nomuntu oneminyaka engavunyelwe ngokomthetho wase South Africa, ukuhlasela ngokushaya, ukuthumba, ukukhwabanisa, ukugqekeza, ukushisa ngenhloso, ukweba, ukweba imoto / ukuphanga). Abantu abake bambandanyeka ebugebengwini bavame ukubika izimo ezifana nalezi. Ngingathanda ukwazi uma wake wahlangana nokufana nalokhu. Ngicela ukhumbule ukuthi ayikho impendulo engamukelekile bese uphendula ngokuthembeka. Ngicela ufake i- "X" lapho kuvumelana nawe.

	Please indicate how much you agree or disagree with each of the following questions **Uyacelwa ukuthi ukhombise ukuthi uvumelana noma awuvumelani kangakanani nalokhu okubuzwa ngezansi**	**Totally disagree** **Angivumel-ani nhlobo**	**Disagree** **Angivum-elani**	**Neither disagree nor agree** **Angivumelani futhi angiphikisani**	**Agree** **Ngiyavu-melana**	**Totally agree** **Ngivumelana kakhulu**
1.	Do you like to listen to other people telling you stories of how they committed crime? Uyathanda ukulalela bekuxoxela izindaba ngezindlela abenze ngazo ubugebengu?					

	Please indicate how much you agree or disagree with each of the following questions Uyacelwa ukuthi ukhombise ukuthi uvumelana noma awuvumelani kangakanani nalokhu okubuzwa ngezansi	**Totally disagree Angivumel-ani nhlobo**	**Disagree Angivum-elani**	**Neither disagree nor agree Angivumelani futhi angiphikisani**	**Agree Ngiyavu-melana**	**Totally agree Ngivumelana kakhulu**
2.	Does the challenge of committing crime under difficult circumstances make the crime more pleasurable for you in comparison to when the circumstances are easier? Ngabe izinselelo zokwenza ubugebengu ngaphansi kwezimo ezinzima zenza ubunamele kakhulu ubugebengu kunalapho izimo zilula?					
3.	Is it exciting for you if you make a person really suffer? Ingabe kuyakujabulisa ukwenza umuntu ezwe ubuhlungu?					
4.	Do you feel powerful when you go to commit a crime? Ingabe uzizwa unamandla uma wenza ubugebengu?					
5.	Is it fun to prepare yourself for going to commit a crime? Ingabe uyakunamela ukuzilungiselela ukuyokwenza ubugebengu?					
6.	During committing a crime does the desire to hurt or kill take control of you? Ngenkathi wenza ubugebengu, ngabe ukulangazelela ukulimaza noma ubulala kuyakulawula?					
7.	Do you enjoy inciting your fellows to commit crime? Uyakujabulela yini ukukhuthaza abanye ukuba benze ubugebengu?					
8.	Is defeating another person more fun for you, when you see them hurt? Ingabe ukunqoba omunye umuntu kuyakujabulisa uma umbona ezwa ubuhlungu?					

	Please indicate how much you agree or disagree with each of the following questions Uyacelwa ukuthi ukhombise ukuthi uvumelana noma awuvumelani kangakanani nalokhu okubuzwa ngezansi	**Totally disagree Angivumel-ani nhlobo**	**Disagree Angivumelani**	**Neither disagree nor agree Angivumelani futhi angiphikisani**	**Agree Ngiyavumelana**	**Totally agree Ngivumelana kakhulu**
9.	Once committing a crime has started, do you get carried away by it? Uma usuqale ubugebengu, ingabe uyahluleka ukuzilawula?					
10.	Have you harm others, just because you wanted to, without having a reason? Usuke wahlukumeza abanye ngoba nje ufuna, ngale kwesizathu?					
11.	Once you got used to committing crime, did you want to commit more and more crime? Uma usujwayele ukwenza ubugengu, ingabe wawufisa ukwenza ubugebengu ngokuphindelela?					
12.	Do you know what it is like to feel the hunger/thirst to commit a crime? Ingabe uyakwazi ukuthi kunjani ukuzizwa ulambele/womele ukwenza ubugebengu?					
13.	Is committing crime the only thing you want to do in your life? Ingabe ukwenza ubugebengu iyona kuphela into ofuna ukuyenza empilweni yakho?					
14.	Can committing crime be sexually arousing for you? Ingabe ukwenza ubugebengu kuyakwenza ulangazelele ucansi?					

	Please indicate how much you agree or disagree with each of the following questions Uyacelwa ukuthi ukhombise ukuthi uvumelana kangakanani noma awuvumelani nalokhu okubuzwa ngezansi	**Totally disagree Angivumela-ni nhlobo**	**Disagree Angivum-elani**	**Neither disagree nor agree Angivumelani futhi angiphikisani**	**Agree Ngiyavu-melana**	**Totally agree Ngivumelana-kakhulu**
15.	When you commit crime, do you stop caring about the possibility that you could get killed? Ngenkathi wenza ubugebengu, ngabe uyayeka ukukhathazeka ngokuthi ungabulawa?					

PART 5

SUBSTANCE USE/UKUSETSHENZISWA KWEZIDAKAMIZWA

The following questions concern information about your potential involvement with alcohol and other drugs during the past 12 months. Please read each of the following questions carefully and decide if your answer is "YES" or "NO". Then mark in the appropriate box next to the question with "X". Please answer every question. If you cannot decide, then choose the response that is mostly right.

Imibuzo elandelayo imayelana nokubandakanyeka kwakho nokusebensiza utshwala nezinye izidakamizwa ezinyangeni ezingu-12 ezedlule. Ngicela ufunde le mibuzo elandelayo ngokucophelela bese uyakhetha ukuthi impendulo yakho u "YEBO" noma u"CHA". Bese ubhala u-"X" eduze kombuzo ebhokisini elifanele. Ngicela uphendule yonke imubuzo. Uma ungakwazi ukukhetha, phendula ngempendulo okuyiyona esondele.

During the PAST 12 MONTHS, did you: **Kulezi zinyanga ezingu-12 ezedlule, uke:**		**Yes/Yebo**	**No/Cha**
1.	Drink any alcohol (more than a few sips)? Waphuza noma ibuphi utshwala (ngaphezu kwamahabulo ambalwa)		
2.	Smoke any marijuana or woonga? Wabhema intsangu noma iwoonga		
3.	Use anything else to get high? / Wasebenzisa noma yini enye ukuzidaka? ("anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff")/ ("nomaini enye" ihlanganisela , yezidakamizwa ezingekho semthethweni, okuthengwe estolo semishanguzo, nahogelwayo)		
4.	Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs? Wake wagibela emotweni eshayelwa umuntu (noma wena) engaphansi kwezidakamizwa noma obesebenzisa utshwala noma izidakamizwa?		
5.	Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in? Uke usebenzise ushwala noma izidakamizwa ukuze unethezeke, noma uzizwe ncono ngawe, noma wamukeleke kubantu?		
6.	Do you ever use alcohol or drugs while you are by yourself, or ALONE? Uke wasebenzisa utshwala noma izidakamizwa uwedwa?		
7.	Do you ever FORGET things you did while using alcohol or drugs? Uke ukhohlwe izinto ozenzile ngesikhathi ungaphansi kophuzo oludakayo noma isidakamizwa?		
8.	Does your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use? Ingabe amalunga omndeni wakho noma abangani bakho bake bakululeke ukuba wehlisa izinga lotshwala noma izidakamizwa?		
9.	Have you ever gotten into TROUBLE while you were using alcohol or drugs? Uke wangena enkingeni ngesikhathi ungaphansi kophuzo oludakayo noma izidakamizwa?		

PART 6/ INGXENYE 6

Criminal Attitude and Associates
The following questions seek to get your attitude towards offending behavour, your percieved control and intentions towards offending behaviour and your associates in offending behaviour. Please put an "X" where it applies to you.

Lemibuzo elandayo ihlose ukuthola ukuthi wena umiphi mayelana nokwenza ubugebengu, ukuzilawula kanye nezinhloso zakho mayelana nobugebengu, kanye nothinteka nabo ebugebengwini. Ngicela ufake u"X" lapho kuvumelana nawe.

Attitude					
	Please indicate how much you agree or disagree with each of the following statements **Uyacelwa ukuthi ukhombise ukuthi uvumelana kangakanani noma awuvumelani nalezi zitatimende ezibhalwe ngezansi**	**Disagree** **Angivumel-ani**	**Undecided** **Angivumelani-futhi angiphikisani**	**Agree** **Ngiyavum-elana**	**Agree completely** **Ngivumelana kakhulu**
1.	It's understandable to hit someone who insults you/ Kuyezwakala ukushaya umuntu okuchukuluzayo				
2.	There is nothing wrong with beating up a child molester/ Alikho iphutha ekushayeni umuntu ohlukumeza ingane ngokocansi				
3.	Sometimes you have to fight to keep your self-respect/ Ngesinye isikhathi kumele ulwe ukuze ugcine isithunzi sakho				
4.	Someone who makes you very angry deserves to be hit/ Umuntu okwenza udinwe kakhulu ukufanele ukushawa				
5.	People who get beat up usually had it coming/ Abantu abajwayele ukushawa ingoba bakufanele				
6.	It's alright to fight someone if they stole from you/ Kulungile ukulwisa umuntu uma ekutshontshele				

	Please indicate how much you agree or disagree with each of the following statements **Uyacelwa ukuthi ukhombise ukuthi uvumelana kangakanani noma awuvumelani nalezi zitatimende ezibhalwe ngezansi**	**Disagree Angivumel-ani**	**Undecided Angivumelani-futhi angiphikisani**	**Agree Ngiyavum-elana**	**Agree completely Ngivumelana na kakhulu**
7.	It's not wrong to hit someone who puts you down/ Akukho phutha ekushayeni umuntu okucekela phansi				
8.	It's not wrong to fight to save face/ Akukho phutha ekulweni ukuze ugcine isithunzi sakho				
9.	Someone who makes you really angry shouldn't complain if they get hit/ Umuntu okucasula kakhulu akamele akhononde uma usumshaya				
10.	There is nothing wrong with beating up someone who asks for it/ Akukho phutha ekushayeni umuntu ozicelelayo ukushawa				
11.	It is reasonable to fight someone who cheated on you/ Kuyezwakala ukulwisa umuntu ophingile				
12.	Stealing to survive is understandable/ Ukweba ukuze uphile kuyezwakala				
13.	A person is right to take what is owed to them, even if they have to steal it/ Umuntu unelungelo lokuthatha lokhu akweletwa kona, noma ngabe kumele akuthathe ngokweba				
14.	I should be allowed to decide what is right and wrong/ Kumele ngivunyelwe ukuthi ngizinqumele, ukuthi yini elungile nengalungile				
15.	I would not enjoy getting away with something that is wrong/ Angeke ngakujabulela ukuphunyuka ngenze into eyicala				
16.	Only I should decide what I deserve/ Imina kuphela okumele anqume ukuthi yini engifanele				
17.	It's wrong to allow lack of money to stop you from getting things/ Akulungile ukuvumela ukungabi namali kukuvimbele ukuthi uthole izinto				
18.	A hungry man has the right to steal/ Umuntu olambile, unelungelo lokweba				

	Please indicate how much you agree or disagree with each of the following statements **Uyacelwa ukuthi ukhombise ukuthi uvumelana kangakanani noma awuvumelani nalezi zitatimende ezibhalwe ngezansi**	**Disagree Angivumelani**	**Undecided Angivumelani futhi angiphikisani**	**Agree Ngiyavumelana**	**Agree completely Ngivumelana na kakhulu**
19.	Taking what is owed to you is not really stealing/ Ukuthatha lokhu okukweletwayo ngale kwemvume akusikona ukweba				
20.	Only I can decide what is right and wrong/ Imina kuphela engingazinqumela ukuthi yini elungile nengalungile				
21.	A person should decide what they deserve out of life/ Umuntu kumele azikhethele lokhu abona kumfanele empilweni				
22.	No matter what I've done, it's only right to treat me like everyone else/ Noma ngabe sengenzeni, kufanele ukuthi nami ngiphathwe njengabantu bonke				
	Perceived behavioral control				
23.	I am not likely to commit a crime in the future/ Angiboni ngisazobenza ubugebengu esikhathini esizayo				
24.	I would keep any amount of money I found/ Ngingagcina noma ngabe yiliphi inani lemali engingayithola				
25.	I could see myself lying to the police/ Ngingawaqambela amanga amaphoyisa				
26.	In certain situations I would try to outrun the police/ Ezimeni ezithize, ngingawabalekela amaphoyisa				
27.	I would be open to cheating certain people/ Ngingavuma ukungathembeki kubantu abathile				
28.	I could easily tell a convincing lie/ Ngingawasho kalula amanga athembisayo				
29.	Rules will not stop me from doing what I want/ Imithetho angeke yangivimba ukuthi ngenze lokhu engifuna ukukwenza				
30.	I would run a scam if I could get away with it/ Ngingakhwabanisa uma ngingeke ngibanjwe				

	Please indicate how much you agree or disagree with each of the following statements **Uyacelwa ukuthi ukhombise ukuthi uvumelana kangakanani noma awuvumelani nalezi zitatimende ezibhalwe ngezansi**	**Disagree Angivumelani**	**Undecided Angivumelani futhi angiphikisani**	**Agree Ngiyavumelana**	**Agree completely Ngivumelana na kakhulu**
31.	For a good reason, I would commit a crime/ Uma nginesizathu esizwakalayo, ngingabenza ubugebengu				
32.	I will not break the law again/ Angeke ngiphinde ngiphule umthetho				
33.	I would be happy to fool the police/ Ngingakujabulela ukukhohlisa amaphoyisa				
34.	I would not steal, and I would hold it against anyone who does/ Angeke ngeba, futhi ngingamsola owebayo				
Associates/subjective norms					
35.	I have a lot in common with people who break the law/ Kuningi okufanayo ngami nabantu abaphula umthetho				
36.	None of my friends have committed crimes/ Akukho noyedwa kubangani bami oseke wenza ubugebengu				
37.	I know several people who have committed crimes/ Ngazi abantu abaningi asebenze ubugebengu				
38.	I always feel welcomed around criminal friends/ Ngihlezi ngizizwa ngamukelekile phakathi kwabangani abenza ubugebengu				
39.	Most of my friends don’t have criminal records/ Iningi labangane bami abanalo irekhodi lobugebengu				
40.	I have friends who have been to jail/ Nginabangani eseke bagwetshwa babasejele				
41.	None of my friends has ever wanted to commit a crime/ Akekho noyedwa umngani wami owake wafuna ukwenza ubugebengu				
42.	I have committed a crime with friends/ Sengike ngenza ubugebengu ngokuhlanganyela nabangani				
43.	I have friends who are well known to the police/ Nginabangani abaziwa kakhulu amaphoyisa				

QUESTIONNAIRE DATA/ IMININGWANE YOHLU LWEMIBUZO

Date/Usuku		
Participant code/Inombolo yobambe iqhaza	_____	***Initials interviewer and digit serial Nr. (e.g. KS001)***

THANK YOU FOR YOUR PARTICIPATION!
NGIYABONGA NGOKUBAMBA KWAKHO IQHAZA!

Appendix B: Department of Social Development ethics approval letter

Department of Social Development
University of Cape Town
Upper Campus
Leslie Social Sciences Building
5th Floor, Office 5.13
Private Bag X3
Rondebosch
7701
South Africa

Tel: +27 21 650 3494
Fax: +27 21 689 2739
Enq: Dr. Khosi Kubeka

To whom it may conc ern-

Ethics clearance for Social Work PhD student- Miss Kwanele Shishane

Dear Sir/Madam

The aforementioned PhD candidate is registered in the Department of Social DeY at the University of Cape Town and is being supervised by Professor Johannes Jo n-bangba to whom further queries may be directed. The ethics linked to her research: "**n relationship between mental health and recidivism among incarceratetl outh offenders: The role of substance use**" has been approved. **T** can vouch that the De6' tment' s Ethics Committee **has given this study ethical clearance** after careful deliberation. fcs Committee meeting was convened comprising of the Head of Department as well a other academics. The candidate has considered all the ethical implications of this propose c6 re : nd will be carefully supervised at every phase to ensure integrity through out the pm

The supervisor Professor Johannes 2'.5m-0 a may be contacted at: 0310620 2792 Or johnlangb aj@ukzn ac za

Yours sincerely
Dr Khosi Kubeka
Senior Lecturer
Postgraduate Research Committee and Ethics Chair
am.kubeka@uct.ac.za

Appendix C: Department of Correctional Services ethics approval letter

correctional services
Department:
Correctional Services
REPUBLIC OF SOUTH AFRICA

Private Bag X136, PRETORIA, 0001 Poyntons Building, C/O WF Nkomo and Sophie De Bruyn Street, PRETORIA
Tel (012) 307 2770, Fax 086 539 2693

Ms K Shishane
A2639 Illovo Township
P.O. Winklespruit
4126

Dear Ms KE Shishane

RE: FEEDBACK ON THE APPLICATION TO CONDUCT RESEARCH IN THE DEPARTMENT OF CORRECTIONAL SERVICES ON: "AN INVESTIGATION OF THE RELATIONSHIP BETWEEN MENTAL HEALTH DIAGNOSIS AND RECIDIVISM AMONG YOUTH OFFENDERS: THE ROLE OF SUBSTANCE USE"

It is with pleasure to inform you that your request to conduct research in the Department of Correctional Services on the above topic has been approved.

Your attention is drawn to the following:

- The Regional Commissioner and Area Commissioner where the research will be conducted will be informed of your proposed research project.
- Your internal guide will be **Ms K Bhamjee: Psychologist, Durban Westville Correctional Centre.**
- You are requested to contact her at telephone number: **(031) 204 8965** before the commencement of your research.
- It is your responsibility to make arrangements for your interviewing times.
- Your identity documents and this approval letter should be in your possession when making visits.
- You are required to use the terminology used in the White Paper on Corrections in South Africa (February 2005) e.g. "Offenders" not "Prisoners" and "Correctional Centres" not "Prisons".
- You are not allowed to use photographic or video equipment during your visits. However, the audio recorder is allowed.
- You are required to submit your final report to the Department for approval by the Commissioner of Correctional Services before publication (including presentation at workshops, conferences, seminars, etc) of the report.
- Should you have any enquiries regarding this process, please contact the Directorate Research for assistance at telephone number (012) 307 2770.

Thank you for your application and interest to conduct research in the Department of Correctional Services.

Yours faithfully

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ND SIHLEZANA
DC: POLICY COORDINATION & RESEARCH
DATE: 25/6/2018

Appendix D: Turnitin Report

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