



**Prevalence of depression and anxiety and associated risk factors among  
adolescent offenders within the juvenile justice system  
in Bulawayo and Matabeleland North Province(s), Zimbabwe.**

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## **Declaration**

I, Marshall Takudzwa Marufu, hereby declare that this thesis/dissertation is based on my original work (except where acknowledgements have been made) and neither any part nor the whole work has been, is being, or has to be submitted for another degree programme in this or any other university.

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## **Abstract**

### **Background**

The mental health of adolescents is becoming an increasing public health concern. Mental health conditions such as depression and have their onset during childhood. Research has shown that adolescents entering the juvenile justice system are particularly vulnerable to depression and anxiety. Despite the negative consequences associated with these conditions among adolescent offenders, there is a dearth of studies conducted in low and middle countries including Zimbabwe on the prevalence and factors associated with symptoms of depression and anxiety among adolescent offenders between 10-17 years within the juvenile justice system. Thus, the aim of this study is to determine the prevalence and factors associated with symptoms of depression and anxiety among adolescent offenders between 10-17 years within the juvenile justice system in Bulawayo and Matabeleland North Province, Zimbabwe.

### **Methods**

In total, 130 adolescent offenders aged between 10 and 17 years were recruited in the cross-sectional study using a convenient sampling technique. The Centre for Epidemiological Studies Depression Scale (CES-D-10) and Generalized Anxiety Disorder (GAD-7) were used to measure symptoms of depression and anxiety, respectively. The Alcohol Use Disorders Identification Test (AUDIT), Drug Use Disorders Identification Test (DUDIT), Fagerstrom Test for Nicotine Dependence (FTND), Rosenberg Self-Esteem Scale, and Sexual Risk Behaviour Beliefs and Self-Efficacy Scales were used to measure individual factors associated depression and anxiety. The Juvenile Victimization Questionnaire (JVQ) was used to measure factors associated with mental health conditions at the family level, while the Multidimensional Scale of Perceived Social Support (MSPSS) was used to measure associations at the social level. Means and proportions were used to describe socio-demographic data as well as the prevalence of potential mental health conditions (depression and anxiety). Unadjusted and adjusted associations between individual, family, and social risk factors and the presence of depression and anxiety were also explored. Only those variables that were significant in the unadjusted models were included in the final adjusted regression model. The standard cutoff level for statistical significance used in this analysis is a p-value of 0.05 or less. The findings are presented in the form of odds ratios (ORs) with 95% confidence intervals (CIs).

## **Results**

The prevalence of depression and anxiety among participants was 18.5% and 10.8% respectively. In total, 7.6% of participants had reported symptoms of both depression and anxiety, highlighting the co-morbidity of mental health conditions among adolescent offenders. After adjusting models, results indicate that adolescents with a known history of mental health problems were more likely to report symptoms of anxiety than those without a known history (OR=15.10, 95% CI 1.86 -122.78). The adjusted models also indicate that adolescents who report more social support are less likely to experience symptoms of anxiety (OR=0.96, 95% CI 0.92 - 0.99). Additionally, the adjusted model shows that participants with high risky sexual behaviour (OR=1.19, 95% CI 1.05-1.35), high self-esteem (OR=1.19, 95% CI 1.05-1.35) and experiencing juvenile victimization or childhood violence (OR=46.87, 95% CI 3.89-565.237) were more likely to have symptoms of depression. Finally, results show that being a first time offender (OR=0.17, 95% CI 0.04-0.80) and having a mother who is alive (OR=0.12, 95% CI 0.02-0.76) are protective factors that reduces the risk of young offenders experiencing symptoms of depression.

## **Conclusion**

Results from the study show that symptoms of depression and anxiety are prevalent among adolescent offenders within the juvenile justice system and are associated with several risk factors. Selective prevention interventions are recommended for this vulnerable population.

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## List of Acronyms

AUDIT	Alcohol Use Disorders Identification Test
CES-D-10	Centre for Epidemiological Studies Depression Scale
DSW	Department of Social Welfare
DUDIT	Drug Use Disorders Identification Test
FCAMHS	Forensic Child and Adolescent Mental Health Services
FTND	Fagerstrom Test for Nicotine Dependence
GAD-7	Generalized Anxiety Disorder
HIC	High Income Country
JVQ	The Juvenile Victimization Questionnaire
LMICs	Low- and Middle-Income Countries
MNSUDs	Mental Neurological and Substance use Disorders
MSPSS	Multidimensional Scale of Perceived Social Support
SADC	Southern Africa Development Community
STIs	Sexually Transmitted Infections
UNCRC	United Nations Convention on the Rights of the Child

## CHAPTER 1: INTRODUCTION

This introductory chapter provides background information leading to this study including the global prevalence of mental health conditions and narrows down to prevalence rates among young offenders. The aims and objectives of this study are also mentioned and lastly the chapter provides a brief outline of the whole thesis.

Adolescents' mental health is increasingly becoming a public health concern. A systematic analysis of the burden of disease globally has revealed that about 8.8% of children and adolescents have been diagnosed with various mental health conditions (Piao et al, 2019). The majority of mental health conditions, notably depression and anxiety, have their onset during childhood with continued exacerbation into adolescence. Results from a systematic review synthesizing the findings of 366 primary studies revealed high global prevalence rates of depression and anxiety among children and adolescents during the COVID-19 period: 32% for depression (95% CI: 27 to 38, n=161 673) and 32% for anxiety (95% CI : 27 to 37, n=143 928) (Harrison, Carducci, Klein, & Bhutta, 2022). Anxiety, depression, and post-traumatic stress disorders have presented as the most common mental health conditions among adolescents in Sub-saharan Africa (SSA) (Sequeira, Singh, & Fernandes, 2022). A large-scale meta-analysis of epidemiological studies on the age of onset for mental health conditions, revealed that most mental health conditions have their onset before the age of 14 years (Solmi et al., 2022).

Some adolescent groups are more vulnerable to mental health conditions than others because of the different risk factors that they are exposed to (Kapungu et al., 2017). These vulnerable groups include pregnant adolescents as Sub-Saharan Africa has the highest pregnancy rates among adolescents between 10 to 19 years (Sequeira, Singh, Fernandes, et al., 2022) Adolescents entering the juvenile justice system are particularly vulnerable to mental health conditions. For example, in a systematic review of 15 studies reporting on the prevalence of mental health conditions among incarcerated male adolescents in high-income countries (HICs), approximately 70% met criteria for at least one mental disorder, with prevalence rates being 12.0% for major depression and 10.7% for separation anxiety (Colins et al., 2010).

A few studies have investigated the prevalence of mental health conditions and associated risk factors among adolescent offenders in Sub-Saharan Africa (Siddig, Ali, & Awadelkarim,

2016). For example, symptoms of mental health conditions were common among a total of 59 adolescent offenders who took part in a study at Ibadan juvenile correctional facility in Nigeria, with a prevalence of depression and anxiety symptoms of 21.9% and 17.9%, respectively (Bella, Atilola, And, & Omigbodun, 2010). In another study that was conducted at Al-Juref juvenile correctional centre in Sudan, 31% of the 48 adolescent offenders who were screened using the Mini International Neuropsychiatric Interview for Children/Adolescents were found to be positive for anxiety disorders whilst 14,6% of these individuals were found to have a major depressive disorder (Siddig et al., 2016). In the same study, mental health conditions among adolescent offenders were found to be significantly associated with several risk factors including child neglect, parental separation, exposure to street violence, alcohol and substance abuse (Atilola, 2012).

There are numerous negative consequences associated with untreated mental health conditions among adolescent offenders. These include substance abuse, low educational achievement, attention problems and delinquency (Mcleod, Uemura, & Rohrman, 2012). Risky sexual behaviour is also prevalent among young offenders within the juvenile justice system making them vulnerable to sexually transmitted infections (STIs) and HIV (Scott, Dennis, Grella, Funk, & Lurigio, 2019). Untreated mental health conditions among adolescent offenders can also increase the chances of adult offending (Barra et al 2022).

Although there are no available studies exploring mental health conditions among adolescent offenders in Zimbabwe, there are studies that have been conducted to estimate the prevalence of mental health conditions among adolescents more generally. One study among school going adolescents found that 51,7% were considered to have moderate symptoms of affective disorders, whereas 23,8% were found to have severe symptoms (Langhaug, Mavhu, Woelk, & Sherr, 2010). This study was conducted at 82 schools in twelve rural communities in south-eastern Zimbabwe, with 1 495 pupils participating in the study. The majority of adolescents who took part in this study had been exposed to three significant risk factors, namely poverty, family disruption and risky sexual behaviour. Results from another study that was conducted to estimate prevalence rates for mental health conditions and emotional, behavioral disorders among adolescents indicate that 37.4% (95% CI 33.0% to 42.0%) had probable mental health conditions while 11.2% (95% CI 9.0% to 13.8%) had suicidal ideation (Doyle et al., 2023). The results of the school survey are however not generalizable to all

adolescents, especially to out of school adolescents whose vulnerability may be different from school going children.

There is a dearth of data regarding number of juvenile offenders who are entering the juvenile justice system within Zimbabwe (Ruparanganda & Ruparanganda, 2016). Adolescent offenders within Zimbabwe are typically arrested for committing offenses that include assault, theft, rape or malicious damage to property. The number of adolescent offenders in conflict with the law entering the juvenile justice system has been on the rise. In 2013 approximately 263 adolescent offenders were arrested, on average, per month across main cities in Zimbabwe such as: Bulawayo, Harare and Mutare (Ruparanganda & Ruparanganda, 2016). The Zimbabwean Prison and Correctional Service Report (2011), indicates that approximately 300 adolescents are arrested and imprisoned at any given time in these cities where approximately 57% remain in remand prison for a period of more than two years. Further, qualitative evidence from Zimbabwe has revealed the range of factors which influence juvenile delinquency. Factors such as neglect, lack of parental attachment, poverty and households in which parents are separated or divorced were identified as highly influential across a sample of adolescent offenders (aged 11 to 17 years) in a Rehabilitation Centre in Zimbabwe (Mambende, Nyandoro, Maunganidze, & Sawuti, 2016). These experiences by adolescent offenders are portrayed as risk factors for mental health conditions among adolescents (Pinto et al., 2014).

In light of the considerable number of adolescents entering the juvenile system in Zimbabwe and their associated vulnerability to mental health conditions, the potential long-term impacts that childhood experiences can impose on adult development and achievement, as well as the lack of prevalence estimates of mental health conditions (Ruparanganda & Ruparanganda, 2016), it is critical to expand the evidence base on the prevalence of mental health conditions among adolescents in the juvenile justice system in Zimbabwe.

Globally, there has been evidence of the increasing recognition of mental health needs for adolescent offenders going through the juvenile justice system which has influenced the development and acceptance of standardized screening instruments and the development of evidence based treatment interventions for mental health conditions in developed countries (Sedlak & Mcpherson, 2010). In this regard, knowledge generated from this study will support both the authorities responsible for child protection as well as mental health policy

makers to understand the mental health needs which exist within the juvenile system. This, in turn, may encourage the introduction of mental health screening and services for adolescents in these settings in Zimbabwe. Furthermore, the study will aim to explore the risk factors associated with symptoms of depression and anxiety among this population to inform the design and development of interventions that may be piloted and tested to address such upstream determinants (Muchiri & Santos, 2018).

### **Aims**

The aim of the study is to determine the prevalence of, and factors associated with, depression and anxiety among adolescent offenders aged 10 to 17 years within the juvenile justice system in the Bulawayo and Matabeleland North regions of Zimbabwe.

### **Objectives**

1. To determine the prevalence of symptoms of anxiety and depression among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Provinces, Zimbabwe.
2. To examine risk factors associated with symptoms of anxiety and depression among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Provinces, Zimbabwe.

### **Thesis Outline**

This dissertation is presented in 5 chapters as follows: Chapter 1 is the introductory chapter that outlines the background of this study and the problem statement. This chapter introduces global prevalence of mental health conditions among adolescents in general then narrows down to prevalence rates among young offenders. Chapter 2 explores the available relevant literature regarding laws and policies governing the juvenile justice system in Zimbabwe. It also highlights the prevalence and factors associated with mental health conditions among adolescents, treatment gaps and consequences of untreated mental health conditions. Chapter 3 outlines the methodology that was used in this research such as, recruitment of participants, data collection tools and research ethics that were followed in this study. Chapter 4 outlines the results of the study by firstly providing descriptive statistics followed by prevalence rates for mental health conditions and lastly highlights risk factors that were associated with mental health conditions among participants. Finally, chapter 5 presents a discussion of the results from this study compared to other studies as illustrated in the literature review. This

final chapter also discusses the strengths and limitations of the study and outlines recommendations.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1. Introduction**

This chapter provides a review of the available literature related to the topic of study. The literature review will first include defining adolescents, a brief description of local and international laws governing the juvenile justice system, followed by an overview of the prevalence and burden of mental health conditions among the adolescent population more generally and where available specifically among adolescent offenders. It will then highlight the mental health treatment gaps for mental health conditions among adolescents in low- and middle-income countries (LMICs), sub-Saharan Africa and Zimbabwe followed by the consequences of untreated mental health conditions. A description of risk factors associated with mental health conditions will be discussed, structured according to the Socio-ecological framework's three main categories namely: interpersonal, proximal, and distal factors (Pinto et al., 2014). This Chapter will conclude by highlighting the gaps in the evidence base which this study intends to address.

#### **Defining adolescence**

There are various definitions that have been provided by different scholars to describe the adolescence period. The World Health Organisation (WHO) defines adolescence as the period between 10-19 years where young people go through significant physical, psychological and social change (Singh et al., 2019). During this period, adolescents form new attachments, relationships and develop a sense of responsibility. However, they face a lot of challenges during this period which include unemployment, health challenges such as unplanned pregnancies, HIV and AIDS leading to depression and anxiety (Singh et al., 2019). Research has shown that most mental health conditions have their onset below the age of 14 years of age (Solmi et al., 2022). However, this study focuses on adolescent offenders between the ages of 10-17 years of age only as those above the age of 18 years are considered as adults by the law in Zimbabwe and as such do not go through the juvenile justice system (Children's Act Chapter 5:06).

#### **Local and international laws governing the juvenile justice system**

Juvenile delinquency has been defined in different ways across different African contexts. In Africa, juvenile delinquency generally refers to a person under the age of 18 years who has committed a criminal offence but cannot be prosecuted in the same manner as that of an adult (Igbinovia, 2012). Juvenile justice refers to a set of laws, policies, guidelines, norms and

institutions put in place specifically to deal with cases for children in conflict with the law (Kaseke, 1993). Young offenders who are going through the juvenile justice system interact with various services ranging from mental health services, school based services, general health services, child welfare services as well as services for substance use prevention and treatment (Scott et al., 2019). In Zimbabwe, young offenders involved in the juvenile justice system have the right to participate in legal proceedings within the Children's Court, ensuring that the interests of the child takes precedence (Ruparanganda & Ruparanganda, 2016).

Various regional and international frameworks have been put in place to guide the management of cases involving children who are in conflict with the law (Ruparanganda & Ruparanganda, 2016). The frameworks include United Nations Rules for the Protection of Juveniles Deprived of their Liberty (Havana Rules)(UN General Assembly, 1991), United Nations Convention on the Rights of the Child (UNCRC) as well as Guidelines for Action on Children in the Criminal Justice System (Vienna Guidelines) (United Nations Economic and Social Council, 2002). These frameworks together with the African Charter on the Rights and Welfare of the Child (ACRWC) (Organisation of African Union, 1990), require that member states establish separate judiciary institutions that handle cases of children who are in conflict with the law.

### **Juvenile justice system in Zimbabwe and available services**

The juvenile justice system in Zimbabwe, just like other African countries can be traced back to the colonial period and is predominantly a social welfare model (Vengesai, 2014). The welfare model is based of the assumption that children who are in conflict with the law are vulnerable and they need protection from the state through establishment of separate criminal justice system in which they are treated differently from adults (Vengesai, 2014). Protection services offered to juvenile offenders in Zimbabwe by government and Non-Governmental Organisations (NGOs) include access to free legal aid, victim friendly services, pre-trial diversion services, child welfare and probation services (Mangwiro et al,2021). The Ministry of Public Service, Labour and Social Welfare through the department of Social Development has the leading statutory responsibility to protect and safeguard children including juvenile offenders in terms of the Children's Act (Chapter 5:06) (Government of Republic of Zimbabwe, 2001). As such, the department provides child welfare and probation services to juvenile offenders through offering psychosocial support to juvenile offenders, investigating the socio-economic conditions, writing reports and making recommendations to the children's courts. The department also runs several correctional facilities for juvenile

offenders in Zimbabwe namely Mutare Remand Home, Mutare Probation Home, Percy Ibbotson, Luveve Training School for Girls, Blue Hills Probation Home, Kadoma Probation Home and Northcot Training Institute (Mangwiroti et al., 2021). However, despite all these services being offered by government and other NGOs, no measures have been put in place to address the mental health conditions of juvenile offenders.

There are two main pieces of legislation in Zimbabwe that are used within the juvenile justice system, namely the Children's Act (Chapter 5:06) and Criminal Procedure and Evidence Act (Chapter 57) (Kaseke, 1993). These laws have led to the creation of the Children's Courts and Magistrates Court in Zimbabwe which are specifically mandated to handle cases involving children who are in conflict with the law. Juvenile delinquency is prevalent among children who are exposed to adverse experiences that include abuse, neglect or abandonment as they transition from childhood to young adults (Ruparanganda & Ruparanganda, 2016). There are further consequences associated with being exposed to the juvenile justice system for adolescents, especially due to the conditions existing within these systems. UNICEF (2013), reported that about 57% of adolescent offenders incarcerated in Zimbabwe remain in police custody for a period of up to two years while awaiting trial or transfer to a juvenile correctional institution. In Zimbabwe, infrastructure shortages has resulted in adolescent offenders sharing cells with hardened and older criminals who have committed serious offences, leaving them vulnerable to sexual or physical abuse. The Ruparanganda et al. (2016) study revealed that adolescents offenders in Zimbabwe going through the juvenile justice system have higher chances of experiencing trauma and consequently risk experiencing other mental health conditions compared to the general adolescent population (Ruparanganda & Ruparanganda, 2016).

### **Prevalence of mental health conditions among adolescents in general population**

Mental health disorders are responsible for about 16% of the global burden of disease in adolescents aged 10-19 years with suicide considered as the leading cause of death among this population (WHO, 2018). Most mental health conditions have their onset during the period of adolescence and continue into adulthood. A large-scale meta-analysis of epidemiological studies on the age of onset for mental health conditions, revealed that most mental health conditions have their onset below the age of 14 years (Solmi et al., 2022).

Depression is particularly common among adolescents aged 13-17 years, with estimates in HICs ranging between 5,6% and 12,5% (Clark, Jansen, Kate, & Cloy, 2012; Clayborne,

Varin, & Colman, 2019). Findings from a systematic review of 43 studies from HICs on adolescents show global rates of 25% for mental health conditions using 4 as a cut-off point on the General Health Questionnaire (GHQ-12) and 31,0% when using the cut-off of 3 (Silva et al., 2020). In another meta-analysis of 29 studies on mental health conditions among adolescents and children during COVID-19, the prevalence rates for depression and anxiety were 25,2% and 20,5% respectively (Racine et al., 2021). The study also indicated that the prevalence estimates for mental health conditions doubled during the pandemic.

LMICs particularly in sub-Saharan Africa have limited data on the rates of mental health conditions among adolescents, despite approximately 90% of the world's adolescent population living in LMICs (Erskine et al., 2017; Sawyer et al., 2012). In a systematic review of 37 studies that investigated the prevalence of mental health problems among adolescents in sub-Saharan Africa, results indicated prevalence rates of 26,9% and 29,8% for depression and anxiety respectively (Jörns-presentati et al., 2021). Additionally, about 67,000 adolescents in LMICs commit suicide each year, with anxiety and depression being the greatest contributors to this burden of disease (Kapungu et al., 2017). Factors such as poverty, child abuse and violence not only heighten the risk of mental health conditions but also increase engagement in other risky behaviors such as substance use (Skeen et al., 2019).

### **Prevalence of mental health conditions among adolescent offenders**

Young offenders within the juvenile justice system have high prevalence rates of mental health conditions compared to the general population (Abrantes, Hoffmann, & Anton, 2005; Rijo et al., 2016). Studies conducted in HICs revealed high prevalence rates of adolescent offenders experiencing depression compared to the general adolescent population (Teplin, Abram, Mcclelland, Dulcan, & Mericle, 2002), with associated research studies among the same population indicating an association between delinquency and depression (Mestre, Vidal, & García, 2017). A number of cross-national research studies have highlighted that more than 60% of youths who are in contact with the juvenile justice system experience a range of mental disorders (Olashore, Ogunwale, & Adebawale, 2016) including anxiety, alcohol and substance use disorder.

Studies from the USA and Canada estimate prevalence rates ranging between 13,0% to 30,4% for depression, 21,3% to 30,0% for anxiety and 21,3% to 30% for substance use disorders among adolescent offenders (Odgers, Burnette, Chauhan, Moretti, & Reppucci, 2003). It is also important to note that the prevalence rates among adolescent offenders may

be different due gender dynamics. Results from studies conducted in HIC countries show that female adolescent offenders developed higher prevalence rates of depression than their male counterparts (Sedlak & Mcpherson, 2010; Teplin et al., 2002). The higher depression rates among female adolescent offenders may be attributed to the fact that they are more vulnerable to internalized disorders, such as mood disorders and anxiety (Cocozza, 2006).

Several studies have demonstrated prevalence of mental health conditions among adolescents within the juvenile justice system. A systematic review of 25 surveys on the prevalence of mental health conditions among adolescents in the juvenile detention and correctional system determined a prevalence rate of 10.6% major depression among male adolescents and 29.2% among female adolescents (Fazel, Doll, & Långström, 2008). Additionally, a systematic review of 15 studies conducted across ten HICs on the prevalence of mental health conditions among incarcerated male adolescent offenders revealed that approximately 70% of those included in the surveys met criteria for at least one mental disorder, with prevalence rates of about 12.0% for major depression, 45.1% for substance use disorders and 10.7% for separation anxiety (Colins et al., 2010). In another systematic review of 47 studies on mental disorders among adolescents in juvenile detention, results indicated a prevalence rate of 10,1% for major depression among male offenders and 25,8% for female offenders (Gates, Turney, Ferguson, Walker, & Staples-horne, n.d.)

Additionally, adolescent offenders going through the juvenile justice system experience high rates of comorbid mental health condition, meaning they suffer from more than one mental health condition. Studies conducted among juvenile offenders in USA reveal that two thirds of female offenders experience more than one mental and substance use condition, with nearly 60% of male offenders experiencing co-morbid mental health conditions each year (Teplin et al., 2002). In another study involving adolescent offenders going through the juvenile justice system in Louisiana, Washington and Texas, 79% of participants screened positive for more than two mental health conditions (Cocozza & Shufelt, 2006). In a longitudinal study conducted in Illinois, USA, 46% of males and 57% of females across 1,800 adolescent offenders experienced more than one mental health conditions (Teplin, Welty, et al., 2015).

Few studies have been conducted to estimate the prevalence of mental health condition among adolescent offenders within the juvenile justice system in Africa. At the Al-Juref Juvenile Correctional institution in Sudan, 48 adolescent offenders were screened using the

Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID – 20) whilst in custody. In this study, a convenient sampling technique was used to recruit 2 females and 46 male participants. Participants who took part in this study screened positive for various mental health condition including agoraphobia (10%), conduct disorder (49%), and PTSD (10%) (Siddig et al., 2016). Additionally, 31,1% of adolescent offenders screened positive for anxiety disorders, 14,6% screened positive for major depressive disorders while 4,7% screened positive for substance abuse (Siddig et al., 2016). Moreover, 31% of adolescent offenders serving their sentences at this juvenile correctional institution also screened positive for cormobid mental health disorders (Siddig et al., 2016).

There is no data from Zimbabwe on the prevalence of mental health conditions among adolescent offenders because there are no quantitative studies that have been conducted yet on this topic. Studies that have been conducted in Zimbabwe mainly encompass desk reviews that outline the need for reform within the juvenile justice system, recommending a transition from a punitive approach to a rehabilitative approach (Kaseke, 1993; Ruparanganda & Ruparanganda, 2016). Although it has been mentioned across these studies that adolescent offenders who enter the juvenile justice system in Zimbabwe are at greater risk of suffering from trauma and other mental disorders (Ruparanganda & Ruparanganda, 2016), to date, there are no studies that have been conducted to establish the prevalence and factors associated with depression and anxiety among this vulnerable population. Understanding the magnitude of this burden is required to plan an adequate response strategy, such as introducing mental health screening and services for adolescent offenders, within the juvenile justice system. Early identification of mental health conditions among adolescents in juvenile justice settings is essential in determining appropriate referrals for treatment when releasing offenders back into the community (Abrantes et al., 2005).

### **The mental health treatment gap**

Although there is no available data on the mental health treatment gap of adolescent offenders specifically, many people living with a mental health condition do not receive treatment. Treatment gaps for mental health conditions remain high especially in developing countries with an estimated 90% of the population failing to access treatment (Whiteford et al., 2013). Shortage of mental health professionals, poor mental health policies, fragmented service provision, limited research capacity, together with stigma and discrimination are some of the factors contributing to the mental health treatment gap in LMICs (Wainberg et al., 2017; World Health Organization, 2003).

Most countries in sub-Saharan Africa have very limited human resources to cater for mental health needs of children and adolescents. The mental health specialist to client ratio is approximately one child psychiatrist serving a population of approximately 4 million clients (Owen, Baig, Abbo, & Baheretibeb, 2016). A national survey on mental health systems costs, constraints and resources revealed shortage of mental health human resources within South Africa (Docrat, Besada, Cleary, Daviaud, & Lund, 2019). Results from this study show that there are 0.9 psychologists, 1.53 Occupational Therapists, 1.06 Speech Therapists and 1.86 Social Workers per 100 000 working in the public sector for uninsured people in South Africa (Docrat et al., 2019). Furthermore, a situational analysis on the mental health human resources crisis in South Africa's rural hospitals revealed that 61% did not have mental health nurses (MHNs), 64% are operating without clinical psychologists, 96% do not have psychiatrists, 78% have no multidisciplinary teams, while 69% of the hospitals operate without specialist mental health outreach services (De Kock & Pillay, 2018).

Similarly, in Zimbabwe, there is a huge shortage of mental health professionals leading to an increased treatment gap for mental health conditions. According to mental health country profiling, there is only one child psychiatrist working in private practice, and none working at the primary care level (Mangezi & Chibanda, 2010). Therefore, many adolescents who seek mental health services in public institutions only receive care from other professionals such as psychiatric nurses but have no access to a specialist child psychiatrist. Furthermore, the World Health Organization did a mental health situational analysis in Zimbabwe which revealed a serious shortage of mental health professionals in Zimbabwe. According to the analysis, there are about 917 psychiatric nurses, 6 registered psychologists and 18 psychiatrists providing mental health services to a population of about 15 million people (World Health Organisation 2020). These mental health professionals serve the whole country with very few working in the public sector.

Furthermore, another health systems analysis carried out in Zimbabwe revealed that costs associated with seeking mental health services in the private sector are very high, with psychiatrists charging about US\$ 150 per hour (Kidia et al., 2017). Such prices are only affordable to less than a third of the population (Kidia et al., 2017) leaving most people in the country without access to mental health services. Moreover, there are trends of mental health professionals leaving the country seeking better opportunities abroad due to the economic hardships the country is currently facing. This exacerbates the already significant mental health treatment gap for adolescents in general. In summary, the psycho-social well being of

adolescent offenders going through the juvenile justice system has been awarded little priority in Zimbabwe (Ruparanganda & Ruparanganda, 2016).

### **Consequences of untreated mental health conditions among adolescent offenders**

Research has identified several negative consequences associated with untreated mental health conditions among adolescents generally. First, mental health conditions that are not treated during adolescence are usually associated with engaging in a number of risky behaviors including criminality, risky sexual behaviour, as well as alcohol and substance abuse later in life (Patel, Flisher, Hetrick, & McGorry, 2007; Pinto et al., 2014). Second, mental health conditions among adolescents are found to be associated with low educational achievement (McLeod et al., 2012). Longitudinal research estimates that adolescents who experience depression together with other mental health problems had lower Grade Point Averages (GPA) than those who experience depression alone (McLeod et al., 2012). Additionally, in a systematic review and meta-analysis of 31 articles, depression among adolescents was found to be associated with a higher odds of failing to complete secondary school and lower odds of entering into post-secondary education (Clayborne et al., 2019).

Although limited research has investigated negative consequences of untreated mental health conditions among adolescent offenders within juvenile detention facilities specifically, studies from HIC have found that these adolescents are more likely to commit suicide, with approximately 19,4% of them having attempted suicide compared to only 6% among non-offenders (Eileen & Redding, 2004). Results from studies on suicidal ideation among adolescents indicated that the prevalence of mental health conditions range from 19% to 32% as compared to 12% to 15.5% among non-offenders (Teplin et al, 2017). Further, adolescent offenders whose mental health conditions are un-detected and untreated also have increased chances of re-offending both as adolescents and adults (Grisso, 2008; National Conference of State Legislators, 2016). In a study that was conducted among young adult offenders, 43,6% female and 51,4% male offenders had a history of untreated mental disorders during childhood, with 20,6% female and 15,3% male offenders reporting to have been in the juvenile justice system during childhood (Copeland, Miller-johnson, Keeler, Angold, & Costello, 2007). Additionally, results from a systematic review and meta-analysis of 17 studies show a significant association between mental health conditions and recidivism among young offenders (Wibbelink, Hoeve, Stams, & Oort, 2017).

## **Risk factors for mental health conditions in adolescents**

The high prevalence of mental health conditions among adolescent offenders requires an in-depth understanding of the risk factors which influence their occurrence. Risk factors in epidemiology refer to conditions that enhances the likelihood of a disease to occur and protective factors refer to those known to reduce the likelihood of one suffering from a particular disease (Muchiri & Santos, 2018). Exploring risk and protective factors for mental health conditions among young offenders is critical when developing prevention and intervention programmes (McCarty, Stoep, Kuo, & Elizabeth, 2007). Mental health problems among adolescents usually emerge as a consequence of exposure to a number of risk factors at individual, family and social levels. On the other hand, protective factors at these levels offer opportunities to promote positive mental well-being, such as social support from family, and financial stability.

Models and theories can be very effective in explaining the association between individual, family and social risk factor levels (Eriksson, Ghazinour, & Hammarstro, 2018). The Socio-ecological framework is useful to structure the consideration of risk factors associated with mental health conditions in adolescent populations. This framework is based on understanding the interaction and multifaceted influences of personal, environmental and social factors in what is referred to as *the ecology of human development* (Bronfenbrenner, 1977). This framework is particularly relevant when exploring risk factors for mental health problems among adolescents because it helps identify intra-personal, distal and proximal, factors impacting on adolescents as they navigate through this phase of physical and psychological change. This framework illustrates how the environment may influence health outcomes for adolescents whilst assisting in the development of potential interventions through identifying opportunities for action (Harper, Steiner, & Brookmeyer, 2018). A review of 16 recently published papers demonstrated that studies that consider the interaction of mental health with factors aligned to the spheres of the socio-ecological framework have a higher potential of generating useful recommendations for mental health policy and practice (Eriksson et al., 2018).

The socio-ecological theory is based on the idea that single factors cannot explain why certain populations are at higher risk of developing mental health conditions in comparison to others. A systematic review conducted on the risk factors most commonly associated with mental health conditions among adolescents categorized these factors according to the three

broad levels namely : individual level, family level and the broader social level (Pinto et al., 2014). Intra-personal factors are related to an individual's genetic make-up and they include cognition, emotion and physical health whereas proximal factors include factors such as peers, family and the community. Moreover, distal factors such as economic, religious cultural and social policies indirectly affect the individual. This model divides a child's environment into interconnected layers as illustrated in the Figure 1 (below).



*Figure 1. Socio-ecological model applied to factors associated with Mental Health Conditions among young offenders*

### ***Individual/Intra-personal factors***

Individual or intra-personal level risk factors for mental health conditions among adolescents include age, gender as well as alcohol and substance abuse (Pinto et al., 2014). Results from a systematic review conducted to establish the prevalence and risk factors, outcomes and protective factors among adolescents in the Caribbean reported an association between depression and risky sexual behaviour, substance abuse as well as juvenile delinquency (Maharaj, Nunes, & Renwick, 2009). Furthermore, in another systematic review of studies on factors associated with mental health conditions among adolescents, low self-esteem has also been highlighted as one of the key individual risk factors (Pinto et al., 2014). This is reiterated in longitudinal studies that were conducted among adolescents aged 15 to 21 years in the USA, which demonstrated a correlation between low-self-esteem and high levels of depression (Orth, Robins, & Roberts, 2008; Paixão, Patias, Dalbosco, & Aglio, 2018). In another study that was conducted in Cape Town and Durban among South African adolescents aged 12-17 years, individual level risk factors such as alcohol and substance misuse were highlighted as very influential in predicting mental health conditions compared to social or family level factors (Brook, Pahl, Morojele, & Brook, 2006).

Furthermore, adolescents who have experienced physical violence, sexual abuse and threatening physical injuries are also at risk of mental health conditions (Dubé, Gagné, Clément, & Chamberland, 2018). Adverse childhood experiences such as parental divorce, domestic violence as well as caring for someone with mental neurological and substance use disorders (MNSUDs) is also associated with depression and anxiety among young offenders. In a study that was conducted among 64 000 male juvenile offenders at the Zurich Juvenile Detention Centre in Switzerland, young offenders were found to be four times as likely to have been affected by adverse life events, eventually leading to offending (Bielas et al., 2016). These adverse life events influence the development of mental health conditions such as anxiety, depression and post-traumatic stress disorder. Similarly, another study conducted among female juvenile offenders at the Oregon State juvenile justice centre in the USA, reported a relationship between physical abuse during childhood, sexual abuse, substance abuse and internalized disorders such as depression and anxiety (Smith & Saldana, 2014).

### ***Family/Proximal factors***

Risk factors for anxiety disorders may be partly explained through a biological element in which children inherit them from their parents. Several studies have been conducted to

compare the history of mental health conditions within families and demonstrated that family related genetic factors play an important role in the development of depression in both adults and children (De-la-iglesia & Olivar, 2015). In a study that was conducted by Ghaziuddin, 13 children had their family history compared where 70% came from family with history of depression and 30% without. The results from this study show that 70% of participants came from a family with a history of depression whereas only 30% of them came from families without history of depression (Greenlee, Mosley, Shui, & Gotham, 2016).

Negative life events which include illness within the family, parents getting divorced, death or parental discord have also been associated with clinical depression among adolescents (De-la-iglesia & Olivar, 2015). Participants who were depressed had experienced several adverse life events that include parental separation and divorce (Greenlee et al., 2016). Alcohol and substance abuse by one of the family members is also a risk factor for mental health conditions among adolescents (Pinto et al., 2014).

### ***Social/Distal factors***

Social factors associated with mental health conditions include gang involvement, school drop-out, bullying, poverty, incarceration as well as witnessing domestic and community violence (Pinto et al., 2014). School drop-out and low performance by adolescents is also associated with mental health conditions. In a study that was conducted in Brazil, low performance at school and manifestation of vegetative anxiety were found to be associated (Pinto et al., 2014). Furthermore, social support as well as the quality of social relationships have an influence on the development of mental disorders in adolescents. Adolescents and children who do not have friends or have poor social relationships are at risk of feeling lonely, suffering from depression or feeling stressed (De-la-iglesia & Olivar, 2015).

The stress-buffering hypothesis indicate that social support reduces the negative effects of mental health conditions such as depression and anxiety among adolescents and it is associated with self-esteem and positive well being (Yu, Kong, Cao, Chen, & Zhang, Lin, 2022). Various studies have showed the association between social support and symptoms of mental health conditions. Results from a study that was conducted among 15 to 19 year olds living in five economically distressed communities including Nigeria and South Africa indicates that adolescents from poor families, with no caring adult or not connected to other people in the community are at risk of suffering from mental health conditions (Cheng et al

2014). Additionally, results from a meta-analysis of 246 studies indicate an association between social support and well being among adolescents (Chu, Saucier, & Hafner, 2010).

The social environment that adolescent offenders are raised in also considerably influence their behaviour. In support of this view, Wikstrom et al, (2012) revealed that behaviour emanates from the constant interaction between the individual and the social environments they are in (Cole & Chipaca, 2016). Moreover, it has been highlighted that communities where adolescents grow up in influence their behaviour; for example those who grew up in street gang-infested communities, are more likely to exhibit violent behaviour (Cole & Chipaca, 2016).

According to a review conducted to establish the effects of mental health on household or individual economic outcomes, there is a positive correlation between economic status and mental health (Lund, 2015; Patel, Saxena, et al., 2007; Stavropoulou & Samuels, 2015). Therefore, poverty can be regarded as a risk factor for mental health conditions among adolescents whilst mental disorders can also lead to poverty. Data from a survey that was conducted in India, Chile, Brazil and Zimbabwe indicates that the frequency of mental health conditions are almost double in poor populations (Patel et al., 2016).

## **Conclusion**

In summary, most mental health conditions have their onset during the period of adolescence and if left untreated may endure into adulthood. There is high prevalence rates established for mental health problems among adolescent offenders when compared to the general population. Despite the high prevalence in other parts of the world there is a dearth of evidence on the prevalence of mental health conditions among adolescent offenders in LMICs, particularly in Zimbabwe. Untreated mental health conditions among this population are hypothesized to impart a number of negative outcomes such as alcohol and substance abuse, offending, low educational achievement and risky sexual behaviour. Understanding factors associated with symptoms of mental health conditions at the individual, family and social level may be useful for decision-makers to support the formulation of policies aimed at preventing or treating mental health problems among this group. As such, this study aims to provide empirical evidence on the prevalence of depression and anxiety among adolescent offenders, and, explore the factors associated with these conditions among this population.

## CHAPTER THREE - METHODOLOGY

The methodology used in this study will be elaborated on in this chapter. This includes information on the study design, study sites, population, recruitment and sampling procedure. Research Instruments, procedures for data collection and ethical considerations will be highlighted.

### Study design

A cross-sectional study design was used to measure both prevalence and factors associated with symptoms of depression and anxiety among adolescent offenders within the juvenile justice system Bulawayo and Matabeleland North provinces, Zimbabwe.

### Study site

The study was conducted in two provinces of Zimbabwe, namely the Matabeleland North and Bulawayo provinces. Matabeleland North province is in the western part of Zimbabwe which is about 545kms from the capital city Harare and is home to approximately 827 626 people (ZIMSTAT, 2022). The region is largely rural and has high levels of poverty compared to other provinces. Although the province largely resides the isiNdebele speaking people, there are also other minority ethnic groups such as the Kalanga, Tonga and the Khoisan people. Bulawayo province on the other hand is situated on the southern region of Zimbabwe and the city of Bulawayo is the second largest city after Harare with an estimated population of 665 940 people. The city is located 435kms away from the capital city Harare and is mainly dominated by isiNdebele speaking people although there are few Shona speaking people as well. As such, the selection of the provinces allows for a reflection of differences across urban and rural settings. The table below (Table 1) summarizes the context in which the study was carried out (ZIMSTAT, 2022).

**Table 1; Study setting (Department of Social Welfare)**

Province	Total population	Adolescent Population	Poverty levels	Main Economic activity	Mental Health Human Resources	DSW offices
Mat/ North	827 626	230 000	87%	Peasant farming Cross border trading	Psychologists 1/100,000 Social worker 2/100,000 Psychiatrists 0/100,000	5
Bulawayo	665 940	532 342	54%	Waged labour Informal Trading	Psychiatrists 1/100,000 Psychologists 3/100,000 Social worker 4/100,000	3

Data was collected on six different study sites within Bulawayo and Matabeleland North provinces. Three data collection sites (Fort-street, Tredgold Building and Percy Ibbotson) were from urban areas while the other three (Umguza, Tsholotsho and Lupane) were in a rural setting. It is essential to note that most of the study sites (Tredgold, Fort Street, Percy Ibbotson) were strategically selected since they are located in the Bulawayo province. Umguza district is in Matabeleland North Province but also very close to Bulawayo province and participants who have symptoms of mental health conditions were also referred to Ingutsheni Psychiatric Hospital so that they get help. The largest mental health and psychiatric hospital in Zimbabwe, Ingutsheni, is located in the Bulawayo province approximately five kilometres away from the study sites. Psychiatrists and Clinical Psychologists are available at this institution and participants with serious mental illnesses were referred to Ingutsheni Psychiatric Hospital for professional assistance. The other two sites which are further away from Ingutsheni, (Tsholotsho and Lupane) are located near district hospitals where distressed participants can also be referred to and obtain further assistance from the psychiatric department.

### **Participants**

Participants for this study were male and female adolescent offenders aged between 10 and 17 years who were arrested for committing criminal offences in Bulawayo and Matabeleland North Provinces. The age limit for this study was 17 years because in Zimbabwe, adolescents above the age of 17 years are treated as adults according to the Children's Act (5.06).

### ***Inclusion criteria:***

To be included in the study, the following inclusion criteria were applied:

1. Adolescent offenders aged 10 to 17 years who have been placed within the juvenile justice system for less than three months at Tredgold, Fort street Percy Ibbotson Districts (Bulawayo Province) and Tsholotsho, Lupane and Umguza Districts (Matabeleland North Province). Adolescent offenders from Tsholotsho, Lupane, Umguza, Tredgold and Fort Street districts who participated in this study were in the juvenile justice system because they were arrested for committing criminal offences. After being arrested, they are brought to the Department of Social Welfare for an interview with a Social Worker, while they remain in the community awaiting trial at the Children's Court. There were also few participants who had been placed at Percy Ibbotson juvenile correctional institution for less than three months.

2. Adolescent offenders who provided informed assent and guardian consent.

***Exclusion criteria;***

1. Adolescent offenders who did not provide informed assent or guardian consent.
2. Adolescent offenders who have been in the juvenile justice system for more than three months, awaiting trial while in the community or in an institution.

**Procedure**

Participants were approached by research team members at the Department of Social Development Offices, during the social enquiry interview. Research team members explained the purpose of the study to potential participants. Guardians signed consent forms (See Appendix A), for those who were willing to take part and assent forms (See Appendix B) were also signed at the offices. Research Team members then accompanied Social Workers from Department of Social welfare (DSW) in Tsholotsho, Lupane and Umguza Districts (Matabeleland North Province) and Fort street, Tredgold and Percy Ibbotson Districts (Bulawayo Province) during home visits that were conducted one week after social inquiry interviews for those whose consent and assent forms had been signed. This visit includes an assessment by a social worker into the socio-economic conditions of the adolescent and to provide psycho-social support to them and their family members a week later when they conduct home visits. DSW offices located in rural areas of Zimbabwe see approximately 5-8 adolescent offenders for evaluation per month, however, DSW offices located in the urban areas receive a higher number of about 7-10 clients per month. Data was collected after the Social Worker had finished psycho-social support sessions. The interviews took place after psycho-social support provision by the Social Worker to ensure that that participants were calm and comfortable.

Members of the research team were independent of the Social Worker who provides psycho-social support to limit any feelings of coercion to participate. Having said this, the members of the research team emphasized to participants and their parents/guardians that if they decide not to participate there will be no bearing on the judgement by the Magistrate. They were reminded that the recommendation had already been written down on the day of the social enquiry interview by the Social Worker on the record of information. The interviews and questionnaires were conducted in Shona, English or isiNdebele which are the main languages

spoken and they took approximately 50 minutes. A summary of the study procedure is outlined in Figure 3.

### Data collection plan

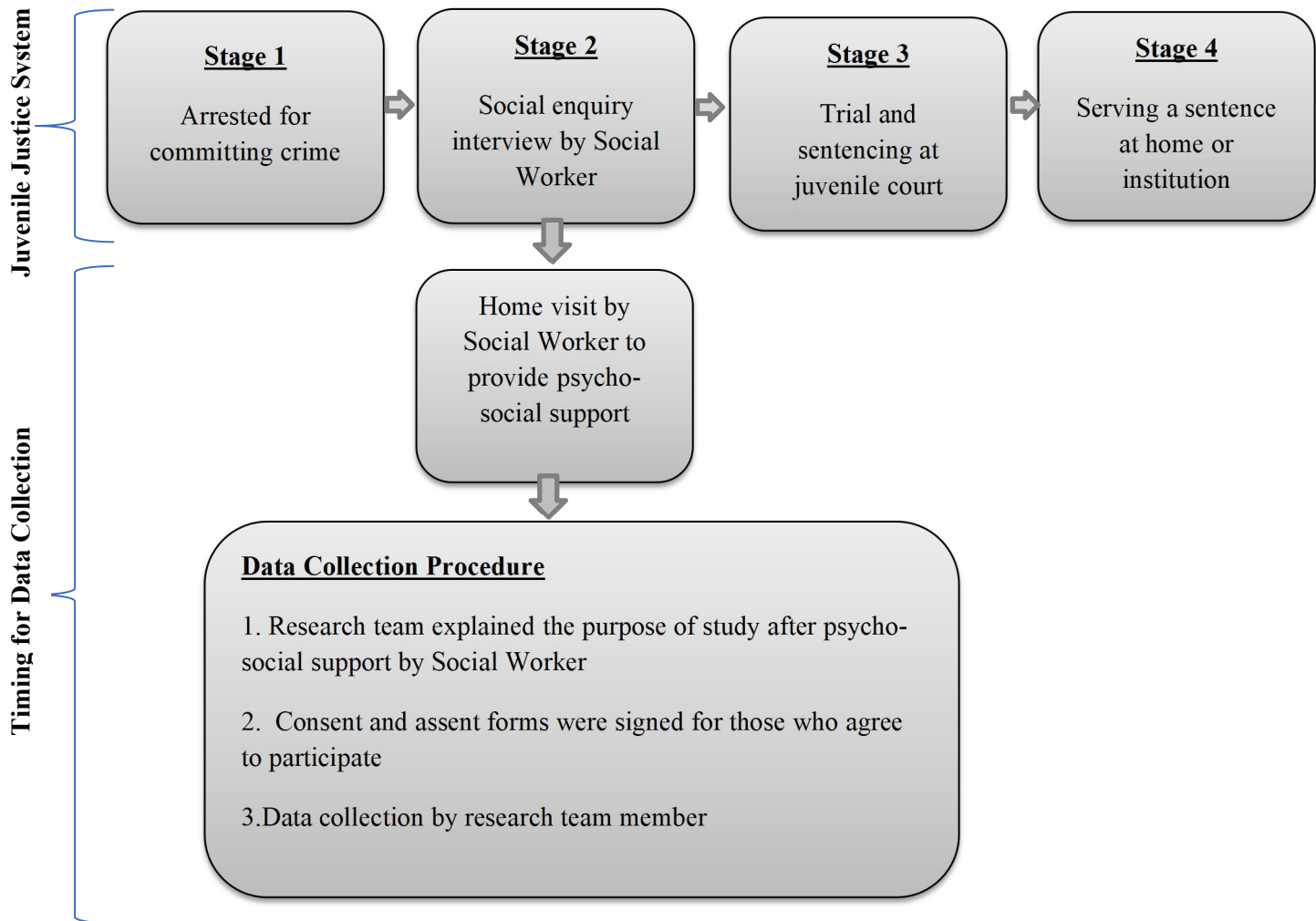


Figure 3; Data Collection Procedure

### Sample size

A convenient sampling technique was used to select participants in this study. When calculating sample size for a cross sectional study, there is a need to consider the level of confidence, an estimation of the prevalence of depression and anxiety as well as estimation of the population size. In this study, the level of confidence was set at 90%, degree of precision 5% and the population size was 300. The population size of 300 has been obtained from the estimated number of adolescents who enter the juvenile justice system at any given time (Ruparanganda & Ruparanganda, 2016). Additionally, we consulted Social Workers from all

study sites who shared statistics on estimated number of adolescent offenders who are brought to the Department of Social Welfare offices monthly after committing crime. The Social Workers reported that on average each of the 6 study site receives between 10-12 young offenders per month. Considering that data collection was planned to be completed within 2 months, this led to a sample size of 130 participants being adopted. There are other cross sectional studies that have been conducted among young offenders in which sample sizes were almost similar to the sample size for this study. In Nigeria, a cross sectional and descriptive study was conducted among 147 young offenders who were detained at a Borstal Institution in Abeo- kuta (Olashore et al., 2016). Moreover, 173 male juvenile offenders were also recruited in a cross sectional study that examined the prevalence of psychiatric disorders, comorbidity patterns, and repeat offending among male juvenile detainees in South Korea (Kim et al., 2017). In another cross sectional study which explored types of childhood maltreatment and the risk of criminal recidivism among adult probationers in Korea, 183 participants were recruited (Kim, Park, & Kim, 2016).

## **Measures**

In addition to socio-demographic information (age, sex, date of birth, employment status and family composition) and offence related information (severity of offence, number of offences), the following measures were included in the questionnaire:

### ***Centre for Epidemiological Studies Depression Scale (CES-D - 10) (Appendix D)***

The Centre for Epidemiological Studies Depression Scale (CES-D - 10) is a 10-item scale which is commonly used when measuring depression among adolescents. This tool was developed by Radloff, 1977 in order to assess depressive symptoms from samples within the community and has been translated and used in several languages. Scores from the CES-D do not provide a clinical diagnosis for depression but they assist in informing on the risk for depression (Mcgee, 2004). The CES-D – 10 is scored through calculating the sum of the ten items, with any score above or equal to the cut-off of 10 considered as “at risk for depression” (Baron, Davies, & Lund, 2017). It is important to note that Items 5 and 8 are reverse coded. The total score is calculated by adding all the items scored after reversing the positive mood items. The screening tool has 10 items which are rated on 4 point likert scale options for responses that include “sometimes”, “never or rarely” “always and “often”. The main limitation of the tool is that it does not inquire on irritability which is considered as one of the major symptoms of depression among adolescents. CES-D-10 has been used and

validated in South Africa among adolescents and an internal validity of ( $\alpha=0.69-0.89$ ) was recorded (Baron et al., 2017). This increases the validity and reliability of the screening tool since it has been used and validated among adolescents living in a LMICs whose conditions may be similar to the Zimbabwean context.

### ***Generalized Anxiety Disorder (GAD-7) (Appendix E)***

GAD-7 is a screening tool that is used to measure symptoms of anxiety and its severity. The tool consists of seven items rated on 4-point Likert scale starting from 0 (not at all) up to 3 (nearly every day) with its scores ranging from 0 up to 21. This tool takes about five minutes to administer. GAD-7 is considered to have good internal validity, sensitivity of 89% as well as specificity of 82% (Spitzer, Kroenke, Williams, & Lowe, 2006). The GAD-7 score is calculated by assigning scores to the response categories of 'not at all', 'several days', 'more than half the days', and 'nearly every day', respectively, and calculating the total scores for the seven questions (Spitzer, Kroenke, Williams, & Lowe, 2006). The cut-off points for mild, moderate and severe anxiety are 5, 10, and 15, respectively. GAD- 7 has not yet been validated among adolescents in Zimbabwe, but has been translated and validated among those above 18 years (Dixon Chibanda et al., 2016). Optimum cut-off points from the validation was  $\geq 10$  with sensitivity of 89% and specificity of 73% (Dixon Chibanda et al., 2016).

### ***Alcohol Use Disorders Identification Test (AUDIT) (Appendix F)***

The full screening tool AUDIT was used in this study to assess alcohol consumption, drinking behaviours, and alcohol-related problems. This tool was initially developed by the World Health Organization as a 10-item screening tool and is used to assess various aspects of alcohol consumption (Morojele & Ramsoomar, 2016). The tool is used to determine whether an individual's alcohol consumption is harmful or not. It takes about 5 minutes to administer the AUDIT with questions 1–10 dealing with frequency of alcohol consumption, number of drinks taken as well as how often the individual consume alcohol. Questions 1-8 are rated on five point scale 0 = “Never”, 1 = “Monthly or less”, 2 = “2-4 times per month”, 3 = “2-3 times per week”, and 4 = “4 or more times per week”. Questions 9 and 10 are scored on a three point scale which is 0 = “No”, 2 = “Yes, but not in the last year”, and 4 = “Yes, during the last year” . It is important to note that questions 2 and 3 can be asked when the answer for anything other than “Never”. Questions 4 and 8 are also enabled when the answer

for question 2 and 3 is anything other than “Never”. Drinking patterns and behaviors are different for both men and women. In this regard, this instrument has a gender-specific scoring showing harmful use of alcohol which is  $\geq 3$  for women and  $\geq 4$  for men. The AUDIT tool has been validated and used to identify alcohol misuse among adolescents in South Africa (Morojele & Ramsomar, 2016).

### ***Drug use disorders identification test (DUDIT) (Appendix G)***

The Drug Use Disorders Identification Test (DUDIT) was developed as a parallel screening tool to the AUDIT and is used to identify individuals with drug-related problems. This is an 11-item screening tool with 5 point scale which was developed in order to identify non-alcohol related drug use patterns and other drug-related problems among individuals in clinical settings and the general public who potentially meet criteria for a substance dependence (Dwyer & Fraser, 2017). The 5 point scale include responses such as “Never” = 0, “once a month or less” = 1, “2-4 times per month” = 2, “2-3 times per week” = 3, and “4 times per week” = 4. The first 4 questions link to drug use, the next set of 4 relate to dependence, and the last 4 ask about drug related problems. The maximum score is 44 with a score of 6 or more for men and 2 or more for women indicating drug related problems (Hildebrand 2015 ). A score of 25 or more regardless of sex indicate strong dependence on drugs. This tool has not yet been validated within the Zimbabwean context but some studies have used it successfully through adopting an optimal cut-off point of 8. (Madhombiro et al., 2017).

### ***Fagerstrom test for nicotine dependence (FTND) (Appendix H)***

The Fagerström Test for Nicotine Dependence screening tool was used for assessing the level of addiction to nicotine among participants. This tool was designed by Fagerström in (1978) as Fagerstrom Tolerance Questionnaire and was later revised and re-named Fagerström Test for Nicotine Dependence by Heatherton in 1991 (Etter, Houezec, & Perneger, 2003). This tool includes six items that evaluate the quantity of cigarette smoking, the desire to smoke as well as dependence. The scoring ranges from 0 to 10, with a score of 10 showing high nicotine dependence whilst 0 reflects no dependence. High total score on the tool indicate, high dependence on nicotine. This tool has not yet been validated or used in Zimbabwe. However, Fagerström Test for Nicotine Dependence has been used to measure nicotine dependence in a study that was conducted among adolescents aged 12-17 years in South

Africa and it has demonstrated good psychometric properties (Pahl, Brook, Morojele, & Brook, 2010).

### ***Rosenberg self-esteem scale (Appendix I)***

This is a 10-item scale used to assess global self-worth by measuring both negative and positive feelings about one's self. The Rosenberg self-esteem scale is considered uni-dimensional and it uses a 4-point Likert scale which ranges from strongly agree to strongly disagree. The Rosenberg self-esteem scale is scored using positive statements such as "strongly Agree" = 3, "agree" = 2, "disagree" = 1 and "strongly Disagree" = 0, whereas negative responses are scored as "strongly agree" = 0, "agree" = 1, "disagree" = 2 and "strongly disagree" = 3 (Chilisa et al., 2013). Scores ranging between 10-25 indicate low self esteem, 26-29 indicate fluctuating medium feelings and 30-40 indicate high self esteem (Chilisa et al., 2013). This tool has not yet been validated among adolescents in the Zimbabwean context. However, it has been used in Botswana to assess self-esteem among adolescents in a low-income setting that is almost similar to the Zimbabwean context (Chilisa et al., 2013).

### ***Sexual risk behaviour beliefs and self-efficacy scales (Appendix J)***

The scale consists of 22 items with three scales addressing sexual risk behaviour, norms about sexual intercourse (NSI), attitudes about sexual intercourse (ASI) as well as self-efficacy in refusing sex (SER). It also consists of five scales related to protective behaviour, norms and attitudes on condom use (ACU), self-efficacy on communication about condoms (SECM), self-efficacy regarding the use and buying condoms (SECU) as well as condom use barriers (BCU) (Unis, Johansson, & Sällström, 2015). Responses on this scale for attitudes about sexual intercourse (ASI), NSI, SCU, SECU are, Definitely no = 1, Probably no = 2, Probably yes = 3, Definitely yes = 4. In other subscales SECM, SER, SECU responses include Not sure at all = 1, Kind of sure = 2, 3 = Totally sure and in sub-scale BCU the responses are I strongly disagree = 1, I kind of disagree = 2, I kind of agree = 3, I strongly agree = 4. Increased intention to engage in sexual risk behaviour is determined by higher values on seven of the eight scales where as high scores for the eighth scale (BCU) highlights lesser intention to engage in risky sexual behaviour (Unis et al., 2015). The Sexual Risk Behaviour Beliefs and Self-Efficacy Scales have got good reliability with scores ranging from 0,61 to 0,87 (Unis et al., 2015). This tool has not yet been validated in Zimbabwe.

### ***Juvenile victimization questionnaire (JVQ) (Appendix K)***

The Juvenile Victimization Questionnaire (JVQ) was used to gather information on a broad range of individual experiences which include quantified descriptions of all major forms of offences against adolescents. This tool is comprehensive, and it covers experiences that can occur to both adults and adolescents such as assault, as well as specific childhood experiences of victimization and neglect. JVQ reports on 34 types of offences against adolescents that can be categorized as sexual assault, child maltreatment, conventional crime, peer and sibling victimization or having witnessed indirect victimization (Hamby et al., 2004). This tool can be self-administered, or it can be administered through an interview with the child or the caregiver. Children aged 8-11 years of age use a caregiver interview whereas those aged 12-17 years can use the child self-administered questionnaire. In this study, self-administered questionnaires were used for children above 12 years old while caregiver interviews were used for those below the age of 11 years. The JVQ can be scored using various methods such as module scored at a one-year incident rate, composite scores like “yes” or “no”. The JVQ has not yet been validated or used in Zimbabwe. However, the tool has been used in a study to establish the prevalence of sexual violence against children in South Africa and it has been translated into four of the country’s official languages (Ward, Artz, Leoschut, Kassanje, & Burton, 2018). This increases the suitability, reliability and validity of the tool to be used in this study since it has been used in a setting which is almost like the study context in terms of culture and language.

### ***Multidimensional scale of perceived social support scale (Appendix L)***

In addition to general questions relating to family structure (i.e family composition, parental substance use, living conditions, and household income), information on social support was collected using the Multidimensional Scale of Perceived Social Support (MSPSS). This is a brief research tool that is used to measure perceived social support from 3 main sources which are the family, friends and significant others. The MSPSS was initially developed in the United States of America to measure perceived social support among adolescents and it has been widely used as an outcome measure for social support (Dambi et al., 2018). It has a total of 12 items, a seven-point likert scale and the responses range from (=1) “very strongly disagree” to (=7) “very strongly agree”. Cumulative scores for the MPSS range from 12 up to 84 with the higher score indicating high social support whilst a lower score reflect low social support (Dambi et al., 2018). This tool has yielded a high internal consistency of ( $\alpha=0,88$ )

and ( $\alpha=0,85$ ) stability (22). This tool has not yet been validated among adolescents in the Zimbabwean context. However, MPSS has been validated among adolescents in Ghana whose context is almost like the study context and its psychometric properties demonstrated very good internal validity (Wilson et al ,2017).

### **Data analysis**

Data collected from this study was captured in Excel, cleaned and then exported into SPSS version 25 for analysis. Means and proportions were used to describe socio-demographic data as well as prevalence of potential mental health conditions (depression and anxiety). Unadjusted and adjusted associations between individual, family and social risk factors and the presence of depression and anxiety was also explored. Only those variables that were significant on the unadjusted models were included in the final adjusted regression model. The results are reported as odds ratio (ORs) with 95% confidence intervals (Cis).

### **Ethical considerations**

Ethical approval for this study was obtained from the following boards before the study commenced: University of Cape Town Human Research Ethics Committee ethics number HREC 603/2019 (See appendix N), Medical Research Council of Zimbabwe (See appendix O), Ministry of Labour and Social Welfare (See Appendix Q).

### ***Informed Consent***

The researcher informed the participants and their parents or guardians in detail about the purpose of study. Information such as possible risks, and benefits associated with the study were given to participants and their parents or guardian before the process of data collection began. According to the Children's Act, any child or juvenile offender is supposed to be accompanied by a parent or guardian when coming for social enquiry interview at the Department of Social Welfare offices. The parent or guardian is supposed to provide information on their ability to respond appropriately to the child's needs, developmental needs, child's behaviour and they are also required to sign on the Record of Information to show their approval of the inquiry by the Social Worker. Adolescent offenders are always accompanied by their parents or guardians when visiting Social Workers/Probation Officers hence they were asked to sign consent forms (see appendix A) if they agree to have their child participate in the study. The participants were again asked to sign a separate assent form to show that they personally agree to take part in the study (see appendix B). The consent forms and assent forms were written in English and were translated to isiNdebele and Shona.

Participants and their parents or guardians were given an opportunity to read and sign consent and assent forms in the language of their choice.

### ***Confidentiality***

All the information that was collected for this study remains confidential and no third party will access the information. Confidentiality could only be breached when the participant had suicidal thoughts, had severe mental health conditions or if there was a possibility harming others. Participants who were distressed and those who had severe mental health conditions (whose scores were very high above the cut-off point on the CES-D-10 and the GAD 7) were referred to the clinical psychologists, social workers or psychiatrist (refer to section below on strategies used to assist distressed participants). Data collected in the study was kept in a password-protected electronic database and no unauthorized individual had access to the data. All relevant paperwork for this study was kept in a locked cupboard in a locked office and only the research team had access to the information.

### ***Risk or benefits***

Participants who took part in this study did not receive any direct benefits. There was minimal risks for participants such as being emotionally affected by some of the questions that were being asked. In such instances the researcher (a social worker) or research assistant (RA) would use his or her professional judgement to determine if further referral to a mental health specialist was required. The Researcher and Research Assistant both had the necessary knowledge and skills to identify emotional reactions.

### ***Strategies used to assist distressed participants***

There was minimal risk for the participants, though it is possible that some may have reacted emotionally to some of the questions which were asked. However, measures had been put in place to mitigate potential risks to participants. Firstly, participants who at any stage in the study felt that they could no longer continue answering questions after being triggered emotionally were allowed to stop participating when they decided to do so. Participants were also at liberty to decide not to respond to specific questions that they felt uncomfortable responding to. There were registered Social Workers at each of the study sites who are employed within the Ministry of Labour and Social Welfare, as well as Psychologists and Sociologists. These staff members offer psycho-social support to children who have been

physically, sexually or emotionally abused and they are regularly trained on psychological interventions like cognitive behavioral therapy and crisis intervention.

Participants who felt distressed and those who had symptoms of mental and substance use disorders during the study were referred to social workers or psychologists for assistance with brief intervention before being further referred to psychiatric nurses who are available at all district hospitals near study sites (See appendix M). Distressed participants who were referred to psychiatric nurses had an opportunity to receive specialist attention from psychiatrists who periodically visit these health institutions.

Psychiatrists and Clinical Psychologists are available at this institution and participants with serious mental illnesses were referred to Ingutsheni Psychiatric Hospital for professional assistance. The other two sites which were further away from Ingutsheni, (Tsholotsho and Lupane) are located near district hospitals where distressed participants can also be referred to and get further assistance from the psychiatric department.

#### ***Cost, compensation and reimbursements***

Participants on this study did not incur costs since members of the research team were visiting them at their home. They however received refreshments as compensation for their time.

## **CHAPTER 4: RESULTS**

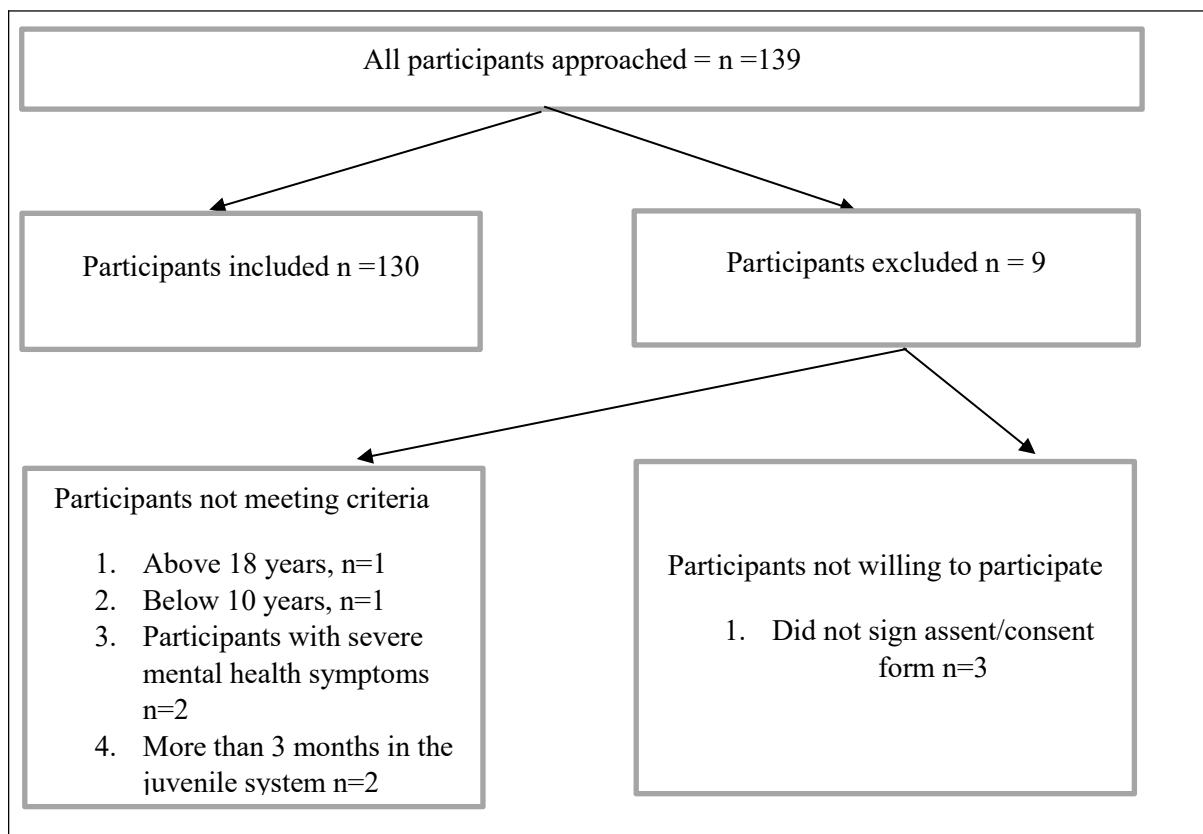
### **4.1 Overview of Chapter**

The focus of this chapter is to provide the results of the analyses performed using data collected by this study. Findings are presented according to the objectives of the study as outlined in the introductory chapter. In this Chapter, the socio-demographic and crime related characteristics of the participants will first be presented. The estimated prevalence of mental health conditions among adolescent offenders participating in this study will then be reported. Finally, this chapter presents logistic regression models describing the associations between socio-demographic and crime related factors, and prevalence of mental health conditions.

### **4.2 Sample characteristics**

In the period between 8 August 2020 and 7 July 2021, 139 adolescent offenders within the juvenile justice system were invited to take part in this study. These offenders had visited a Social Worker from Department of Social Development (DSD) in Tsholotsho, Lupane and Umguza Districts (Matabeleland North Province) and Fort Street, Tredgold and Percy Ibbotson Districts (Bulawayo Province). Following an in-depth description of the study, 139 participants were approached, 130 of which met the inclusion criteria, where nine participants were excluded. Of the 9 participants who did not take part in this study, 3 of them refused to take part in the study, did not sign assent forms and their parents/guardians did not sign consent forms as well. The other six participants did not take part due to reasons such as being above the age of 18 years (n=1), below the age of 10 years (n=1), being in the juvenile justice system for more than three months (n=2) and lastly (n=2) were referred to mental health professionals as they had symptoms of severe mental health conditions. Figure 4 illustrates the outcome of the recruitment process for the study.

**Figure 4 : Flow chart showing recruited participants and those excluded**



### **4.3 Socio-demographic characteristics of participants**

A total of 130 participants between the ages of 10 to 17 years of age took part in this study and the mean age was 15.28. Majority of participants who took part in this study were 15 years old (n=41), followed by 16 year (n=39), 14 year old participants (n=29), 17 years old participants (n=17) and least participants were 13 years old (n=4). Most participants who took part in this study were males 70.8% (n=92), while 29.2% (n=38) were females. Only 30% (n=39) completed secondary education, 49.2% (70.8%) completed primary school and 20.8 % (n=27) did not attend school at all. Of the 130 participants, 28.5% (n=37) were employed, 11.5% (n=15) were unemployed, 33.1% (n=43) self-employed, 20 % (n=26) part time employed and only 6.9% (n=9) were employed full-time. Most participants' parents were alive 73.1% (n=95) with 26.9% (n=35) participants being orphans. Most participants (96.9%, n=126) reported having siblings. Many participants 76.9% (n=100) mentioned that they are closely attached to their mothers, 17.7% (n=23) are closely attached to their fathers while 4.6% (n=6) reported being closely attached to other guardians. Most participants' fathers 67.7% (n=88) were breadwinners providing for the family, 23.1 % (n=30) of participants mothers were the breadwinners, 4.6% (n=6) of participants' guardians were breadwinners whilst 3.8 % (n=5) were child headed households where other siblings were

responsible for taking care of the family. Most of participants reported that their parents/guardians were self-employed 33.1 % (n=43) with only 6.9 % (n=9,) of participants sharing that their parents are full time employed. About 20.0% (n=26) of participants shared that their parents were part time employed, 28.5 % (n=37) are employed and 11.5% are unemployed (n=15). Table 2 below, summarise the socio-demographic characteristics of the participants.

**Table 2 : Social Demographic characteristics of participants (N=130)**

<b>Variable</b>	<b>N</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	92	70.8
Female	38	29.2
<b>Age</b>		
13 Years old	4	3.08
14 Years old	29	22.30
15 Years old	41	31.54
16 Years old	39	30.00
17 Years old	17	13.07
<b>Education status</b>		
Did not attend school	27	20.8
Completed Primary school	64	49.2
Completed secondary school	39	30.0
<b>Employment status (Participants)</b>		
Employed	37	28.5
Unemployed	15	11.5
Self-Employed	43	33.1
Part-time Employed	26	20.0
Full-time Employed	9	6.9
<b>Parents alive</b>		
No	35	26.9
Yes	95	73.1
<b>Mother alive</b>		
No	20	15.4
Yes	110	84.6
<b>Father alive</b>		
No	26	20.0
Yes	104	80.0
<b>Do you have siblings</b>		
No	4	3.1
Yes	126	96.9
<b>Do you live as a nuclear family</b>		
No	25	19.02
Yes	105	80.8
<b>Who are you closely attached to</b>		
Mother	100	76.9
Father	23	17.7
Guardian	6	4.6
Missing value	1	0.8
<b>Who is the breadwinner</b>		
Father	88	67.7
Mother	30	23.1
Guardian	6	4.6
Sibling	5	3.8
Other	1	0.8

<b>Employment status of caregiver</b>		
Employed	37	28.5
Unemployed	15	11.5
Self-employed	43	33.1
Part-time employed	26	20.0
Full-time employed	9	6.9

#### 4.4 Crime-related variables

Table 3 describes the crime related characteristics of the participants. The majority of young offenders who participated in this study were first time offenders (83.8%). The type and severity of crime varied among participants. Of the 130 participants who took part in this study, 20.8% (n=27) of young offenders who participated had been arrested for committing assault, 7.7% (n=10) had damaged other people's properties whilst 13.8%(n=18) had committed indecent assault/sexual offence, 35.4% (n=46) had stolen goods from other people whilst 10.0% (n=13) and 12.3% (n=16) had committed serious crimes such as rape and murder respectively. Young offenders who took part in this study also had different types of sentences depending on the severity of their crimes. Most of the participants had been sentenced to perform community service 34.6% (n=45) whilst the least number of them had been given corporal punishment 6.2% (n=8). About 19,2% (n=25) of the participants were committed to a probation institution by magistrates within the Children's Court, 11.5% (n=15) were given post-poned sentences whilst the remaining 28.5% (n= 37) were warned and cautioned. Of the 130 participants, 30.2% (n=39) had been arrested for being involved in gang related crimes whereas 69.8% (n=90) had committed crimes on their own without being part of a gang. 52.3 (n=68) respondents were not victimized during childhood whilst 47.7% (n=62) admitted that they were physically abused or they witnessed someone being physically abused. Lastly, half of participants 47.69% (n=62) reported having experienced childhood trauma through either witnessing violence or as victims of the violence. See table 3.

**Table 3: Crime related characteristics (N=130)**

<b>Variable</b>	<b>Total sample (N=130)</b>	<b>Percentage (%)</b>
<b>First time offence</b>		
No	21	16.2
Yes	109	83.8
<b>Times arrested</b>		
One	109	83.8
Two	10	7.7
Three	9	6.9
Four	2	1.5
<b>Nature of crime committed</b>		
Assault	27	20.8
Theft	46	35.4

Rape	13	10.0
Indecent Assault	18	13.8
Murder	16	12.3
Malicious Damage to property	10	7.7
<b>Types of sentences</b>		
Warned and cautioned	37	28.5
Postponed sentence	15	11.5
Community Service	45	34.6
Committal to a Probation Institution	25	19.2
Corporal punishment	8	6.2
<b>Gang involvement</b>		
No	90	69.8
Yes	39	30.2
<b>Juvenile victimization</b>		
No	68	52.3
Yes	62	47.7

#### 4.5 Prevalence of mental health conditions

Firstly 5.4% (n=7) of participants who took part in this study reported having a history of mental health conditions while majority 94.6% (n=123) did not have any history of mental health conditions. Based on the responses given on the CESD scale to measure symptoms of potential depression 18.5% (n=24), of participants reported symptoms of depression. Moreover 10.8% (n=14) of participants screened at risk for symptoms of anxiety according the GAD-7 screening tool. An exploration of participants who screened at risk for both depression and anxiety results in a prevalence of 7.6% (n=10). In total 7.7% (n=10) reported any tobacco use, 6.2% (n=8) alcohol use and 6.2% (n=8) illicit drug use. See Table 4.

**Table 4 : Psycho-social characteristics of sample (N=130)**

Variable	Total sample (N=130)	Percentage (%)
<b>History of Mental Health Problems</b>		
No	123	94.6
Yes	7	5.4
<b>Depression</b>		
No	106	81.5
Yes	24	18.5
<b>Anxiety</b>		
No	116	89.2
Yes	14	10.8
<b>Co-morbidity (depression and anxiety)</b>	10	7.6%
<b>Any tobacco use</b>		
No	120	92.3
Yes	10	7.7
<b>Any alcohol use</b>		
No	122	93.8
Yes	8	6.2

<b>Any illicit drug use</b>		
No	122	93.8
Yes	8	6.2
<b>Juvenile victimization</b>		
No	68	52.31
Yes	62	47.69

#### 4.6 Factors associated with mental health conditions among adolescent offenders

An analysis of the unadjusted and adjusted associations between socio-demographic, crime related, psycho-social characteristics and anxiety is illustrated in table 5 below. After adjusting models, results indicate that adolescents with a known history of mental health problems were more likely to report symptoms of anxiety than those without a known history (OR=15.10, 95% CI 1.86 -122.78). The adjusted models also indicate that adolescents who report more social support are less likely to experience symptoms of anxiety (OR=0.96, 95% CI 0.92 - 0.99).

**Table 5 : Unadjusted and adjusted associations between socio-demographic, crime related, psycho-social characteristics and anxiety**

Variable	% Yes	N (%) No	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
<b>Sex</b>				
Male	9 (64.3)	83 (71.6)	1.00	1.00
Female	5 (35.7)	33 (28.4)	1.40(0.44-4.48)	1.07(0.26-4.45)
<b>Age (m,sd)</b>	15.7(1.07)	15.2 (1.04)	1.60(0.90-2.80)	2.02(0.99-4.12)
<b>Completed Education</b>				
No	7 (50.0)	36 (31.1)	1.00	
Yes	7 (50.0)	79 (68.7)	0.45(0.15-1.35)	
<b>Mother alive</b>				
No	3 (21.4)	17 (14.7)	1.00	
Yes	11 (78.6)	99 (85.3)	0.63(0.16-2.49)	
<b>Father alive</b>				
No	4 (28.6)	22 (19.0)	1.00	
Yes	10 (71.4)	94 (81.0)	0.59(0.17-2.04)	
<b>Do you live with parents</b>				
No	3 (21.4)	19 (16.4)	1.00	
Yes	11 (78.6)	97 (83.6)	0.72(0.36-5.47)	
<b>Breadwinner employment status</b>				
Unemployed	2 (14.3)	13 (11.2)	1.00	
Employed	12 (85.7)	103 (88.8)	0.76(0.15-3.77)	
<b>First time offender</b>				
No	6 (42.9)	15 (12.9)	1.00	1.00
Yes	8 (57.1)	101 (87.1)	0.19(0.06-0.65)***	0.32(0.08-1.30)
<b>Nature of crime committed</b>				
Theft/malicious damage to property	6 (42.9)	50 (43.1)	1.00	
Assault	4 (28.6)	23 (19.8)	1.45(0.37-5.64)	
Rape/Indecent Assault	3 (21.4)	28 (24.1)	0.89(0.21-3.85)	

Murder	1 (7.1)	15 (12.9)	0.56 (0.06-4.99)	
<b>Gang involvement</b>				
No	7 (50.0)	83 (72.2)	1.00	
Yes	7 (50.0)	32 (27.8)	2.59(0.84-7.98)	
<b>Any alcohol use</b>				
No	13 (92.86)	109 (93.97)	1.00	
Yes	1 (7.14)	7 (6.03)	1.20(0.14-10.51)	
<b>Any illicit drugs</b>				
No	11 (78.6)	111 (95.7)	1.00	1.00
Yes	3 (21.4)	5 (4.3)	6.06(1.27-28.8)	1.10(0.14-8.45)
<b>Any Tobacco use</b>				
No	11 (78.57)	109(93.97)	1.00	
Yes	3 (21.43)	7 (6.03)	4.25(0.96-18.80)	
<b>Self Esteem (m,sd)</b>	13.7 (4.8)	57.4 (14.3)	1.11(0.99-1.25)	
<b>Risky Sexual Behavior (m,sd)</b>	13(5.31)	11.28(4.33)	1.08(0.97-1.21)	
<b>Juvenile Victimization</b>				
No	3(21.43)	65(56.03)	1.00	1.00
Yes	11(78.57)	51(43.97)	4.67(1.24-17.64)	2.78(0.58-13.25)
<b>Social Support (m,sd)</b>	46.86(19.29)	57.38(14.31)	0.96(0.93-0.99)	0.96(0.92-0.99)***
<b>History of MH</b>				
No	10 (71.4)	113 (97.4)	1.00	1.00
Yes	4 (28.6)	3 (2.6)	15.07(2.95-76.95)	15.10(1.86-122.78)***

<sup>1</sup>Three stars (\*\*\*) in the table above indicate statistical significance

Table 6 below illustrates the adjusted and unadjusted associations of participant characteristics who screened positive for symptoms of depression. After adjusting other variable's effects in the model, participants with high risky sexual behaviour (OR=1.19, 95% CI 1.05-1.35), high self-esteem (OR=1.19, 95% CI 1.05-1.35) and experiencing juvenile victimization or childhood violence (OR=46.87, 95% CI 3.89-565.237) were more likely to have symptoms of depression. Additionally, the results show that first time offenders (OR=0.17, 95% CI 0.04-0.80) and having a mother who is alive (OR=0.12, 95% CI 0.02-0.76) are protective factors that reduces the risk of young offenders experiencing symptoms of depression .

**Table 6 : Unadjusted and adjusted associations between socio-demographic, crime related, psycho-social characteristics and depression**

Variable	% Yes	N (%) No	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
<b>Sex</b>				
Male	15(62.50)	77(72.64)	1.00	1.00
Female	9(37.50)	29(27.36)	1.59(0.63-4.04)	0.10(0.24-4.06)
<b>Age (m,sd)</b>	15.54(0.93)	15.22(1.07)	1.35(0.88-2.09)	1.63(0.82-3.22)
<b>Completed Education</b>				
No	15(62.50)	28(26.42)	1.00	1.00
Yes	9(37.50)	77(72.64)	0.22(0.09-0.55)*	0.29(0.07-1.18)
<b>Mother alive</b>				
No	7(29.17)	13(12.26)	1.00	1.00

Yes	17(70.83)	93(87.74)	0.34(0.12-0.97)*	0.12(0.02-0.73)***
<b>Father alive</b>				
No	8(33.33)	18(16.98)	1.00	
Yes	16(66.67)	88(83.02)	0.41(0.15-1.10)	
<b>Do you live with parents</b>				
No	7(29.17)	15(14.15)	1.00	
Yes	17(70.83)	91(85.85)	0.40(0.14-1.13)	
<b>Breadwinner employment status</b>				
Unemployed	1(4.17)	14(13.21)	1.00	
Employed	23(95.83)	92(86.79)	3.50(0.44-28.00)	
<b>First time offender</b>				
No	10(41.67)	11(10.38)	1.00	1.00
Yes	14(58.33)	95(89.62)	0.16(0.05-0.45)***	0.17(0.04 - 0.80)***
<b>Nature of crime committed</b>				
Theft/malicious damage to property	15(62.50)	41(38.68)	1.00	
Assault	4(16.67)	23(21.70)	0.48(0.14-1.60)	
Rape/Indecent Assault	5(20.83)	26(24.53)	0.53(0.12-1.62)	
Murder	0	16(15.09)	1	
<b>Gang involvement</b>				
No	13(54.17)	77(72.64)	1.00	
Yes	11(45.83)	28(26.42)	2.32(0.93-5.79)	
<b>Any alcohol use</b>				
No	21(87.50)	101(95.28)	1.00	
Yes	3(12.50)	5(4.72)	2.89(0.64-13.02)	
<b>Any illicit drugs</b>				
No	20(83.33)	102(96.23)	1.00	1.00
Yes	4(16.67)	4(3.77)	5.10(1.18-22.10)***	1.85(0.11-30.68)
<b>Any Tobacco use</b>				
No	21(87.50)	99(93.40)	1.00	
Yes	3(12.50)	7(6.60)	2.02(0.48-8.46)	
<b>Self Esteem (m,sd)</b>	15.57(5.26)	10.64(3.71)	1.25(1.13-1.39)***	1.19(1.05-1.35)***
<b>Risky Sexual Behavior (m,sd)</b>	15.08(5.66)	10.64(3.71)	1.22(1.11-1.35)***	1.19 (1.05-1.35)***
<b>Juvenile Victimization</b>				
No	2(8.33)	66(62.26)	1.00	1.00
Yes	22(91.67)	40(37.74)	18.15(4.05-81.33)***	53.43(4.13-690.59)***
<b>Social Support (m,sd)</b>	50.04(19.02)	57.65(13.91)	0.97(0.94-0.10)***	1.00(0.96-1.04)
<b>History of MH</b>				
No	20(83.33)	103(97.17)	1.00	1.00
Yes	4(16.67)	3(2.83)	6.87(1.43-33.06)***	1.89(0.19-18.57)

<sup>2</sup>Three stars (\*\*\*) in the table above indicate statistical significance

## CHAPTER 5: DISCUSSION

The main purpose of this final chapter is to discuss findings presented in Chapter 4. The chapter will start with a discussion on the main findings of the study which are prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North province. Additionally, this chapter highlights the implications of the study findings and limitations of the study, recommendations and lastly conclusions.

### **Overview of the main findings**

Three main findings emerged from this study. First, this study found a high prevalence rates of depression and anxiety symptoms among sampled adolescents, with estimated prevalence rates of 18.5% (n=24) and 10.8% (n=14) respectively; 7.6% of participants reported comorbid symptoms of both depression and anxiety. Second, in the adjusted model, adolescents with a known history of mental health problems were more likely to report symptoms of anxiety, and those who reported more social support were less likely to experience symptoms of anxiety. Third, adolescents who reported high levels of reported risky sexual behaviour, self-esteem and experiencing juvenile victimization or childhood violence were more likely to experience depression symptoms. Further, adolescents who were first-time offender and had a mother who is alive were less likely to report experiencing symptoms of depression.

### **Prevalence of depression and anxiety**

Given the limited research conducted with adolescent offenders within the juvenile system in Zimbabwe, this is the first study to investigate the prevalence of depression and anxiety among this vulnerable population in Zimbabwe. Although previous studies in Zimbabwe have highlighted the likelihood of mental health conditions among adolescent offenders within the juvenile justice system (Ruparanganda & Ruparanganda, 2016), none have provided statistics or data to back up this claim.

Findings from this study have estimated the prevalence for symptoms of depression and anxiety among adolescent offenders to be 18.5% (n=24) and 10.8% (n=14) respectively. About 7.6% of participants had reported symptoms of both depression and anxiety, highlighting the co-morbidity of mental health conditions among adolescent offenders.

Findings from this study are consistent with studies conducted in HICs where most of the available literature can be found. In a review of 15 studies from 10 HICs the prevalence of mental health conditions among detained male adolescents was approximately 12.0% for depression and 10.7% with anxiety (Colins et al., 2010).

However, these results are lower than findings from other studies that have been carried out to establish the prevalence of mental health conditions among adolescent offender in LMICs. For example, a study conducted at Ibadan juvenile correctional facility in Nigeria, estimated a prevalence of depression and anxiety symptoms of 21.9% and 17.9%, respectively (Bella, Atilola, And, & Omigbodun, 2010). Further, in a study conducted at Al-Juref juvenile correctional facility in Sudan, 31% of the sample had an anxiety disorder whilst 14,6% were found to have a major depressive disorder (Siddig et al., 2016).

Even when comparing the prevalence of depression and anxiety found in this study to studies among the general population of adolescents, they appear lower. A recent systematic review in Sub-Saharan Africa reported estimates of 26,9% and 29,8% for depression and anxiety respectively (Jörns-presentati et al., 2021). This is surprising given that many researchers have hypothesized this a particularly vulnerable group who would be more likely to experience a higher prevalence rate of mental health conditions compared to the general population (Abrantes,Hoffmann, & Anton, 2005; Rijo et al., 2016). Few studies have been conducted in Zimbabwe to examine the prevalence of mental health conditions among adolescents in general population. A study among school going adolescents found that 51,7% were considered to have moderate symptoms of affective disorders, whereas 23,8% were found to have severe symptoms (Langhaug et al., 2010). Researchers in this study used a 14-item, locally validated screening tool called the Shona Symptoms Questionnaire (SSQ-14) mostly used to screen affective disorders such as depressions and anxiety. This SSQ-14 is different from the Generalized Anxiety Disorders (GAD-7) and the Centre for Epidemiological Studies Depression Scale (CES-D - 10) used in this study which could be another reason why this study had lower rates. The prevalence rates in this study are lower than estimates among school going adolescents in Zimbabwe as estimated by (Langhaug et al., 2010). This could be possibly because their estimates include a variety of disorders classified under “affective disorders” while this study has been specifically looking at depression and anxiety only.

Given the low prevalence of depression and anxiety in the sample, it's not surprising that findings revealed a low prevalence of comorbid depression and anxiety. There could be a number of reasons to explain the lower estimates of prevalence in this study. There were very few female participants 29.2% (n=38) compared to males 70.8% (n=92) in the study. Given the literature suggests that females are more like to present with internalizing symptoms (Cocozza & Shufelt, 2006) and males with externalizing this could explain the findings. In addition, the low prevalence of depression and anxiety in this study could be attributed to the fact that most participants' parents were alive 73.1 %(n=95), a majority of them reported that their mothers were alive 84% (n=110) and most of them reported they were living with their siblings 96.9% (n=126). This resonates with the literature in this study which indicates that adolescents and children who do not have friends or have poor social relationships are at risk of feeling lonely, suffering from depression or feeling stressed (De-la-iglesia & Olivar, 2015). In this study, having a mother who is alive (OR=0.12, 95% CI 0.02-0.76) has been identified to be a protective factor that reduces the risk of young offenders experiencing symptoms of depression.

Furthermore, the juvenile justice system in Zimbabwe is based on a welfare model that emphasize on protecting and rehabilitating young offenders rather being punitive (Vengesai, 2014). Protection services offered to juvenile offenders in Zimbabwe by government and Non-Governmental Organisations (NGOs) include access to free legal aid, victim friendly services, pre-trial diversion services, child welfare and probation services (Mangwiroti et al,2021). As such, the low prevalence rates for depression and anxiety in this study could also be attributed to the welfare, protection and supportive approach that the juvenile justice system in Zimbabwe have adopted.

### **Factors associated with symptoms of anxiety**

Results from this study indicate that two variables were significantly associated with reported symptoms of anxiety in the adjusted model. First, participants with known history of mental health conditions were more likely to report symptoms of anxiety than those without (OR=15.10, 95% CI 1.86 -122.78). This finding isn't altogether surprising given that anxiety symptoms are often present in people living with other conditions, including severe mental health conditions (Teplin, Welty, et al., 2015). This association can also be attributed to the large treatment gap in Zimbabwe indicating that many adolescents may not be receiving care despite the need. A mental health systems analysis conducted in Zimbabwe revealed that majority of mental health conditions among adolescents are not treated due to factors such as

shortage of trained mental health professionals and allocated budget and resources towards mental health in the country (Kidia et al., 2017). Furthermore, the literature reveals that adolescent offenders whose mental health conditions are un-detected and untreated also have increased chances of re-offending both as adolescents and adults (Grisso, 2008; National Conference of State Legislators, 2016).

The other variable that remained significantly associated with anxiety in the adjusted model was social support. Participants who reported increased social support were less likely to report symptoms of anxiety. According to the literature, social support as well as the quality of social relationships have an influence on the development of mental disorders in adolescents (De-la-iglesia & Olivar, 2015). Adolescents and children who do not have friends or have poor social relationships are at risk of feeling lonely, suffering from mental health conditions or feeling stressed (De-la-iglesia & Olivar, 2015). The stress-buffering hypothesis indicate that social support reduces the negative effects of mental health conditions such as depression and anxiety among adolescents and it is associated with self-esteem and positive well being (Yu et al., 2022). Various studies have showed the association between social support and symptoms of mental health conditions. Results from a study that was conducted among 15 to 19 year olds living in five economically distressed communities including Nigeria and South Africa indicates that adolescents from poor families, with no caring adult or not connected to other people in the community are at risk of suffering from mental health conditions (Cheng et al 2014). Additionally, results from a meta-analysis of 246 studies indicate an association between social support and well being among adolescents (Chu et al., 2010). Results from this study have revealed that participants receiving adequate social support from family and friends had lower odds of symptoms of anxiety. This result was expected as the literature review and other studies also indicate that social support as well as the quality of social relationships is associated with the development of mental health conditions in adolescents.

### **Factors associated with symptoms of depression**

A number of factors were associated with symptoms of depression among participants in the adjusted model. To begin with, participants who reported risky sexual behaviour were more likely to report symptoms of depression. Findings from this study resonate with results from a systematic review conducted to establish the prevalence and risk factors, outcomes and protective factors among adolescents in the Caribbean which show an association between depression, risky sexual behaviour, substance abuse as well as juvenile delinquency (Maharaj

et al., 2009). In another systematic review that was conducted in 17 LMICs, including five African countries, results also indicate that adolescents with depressive symptoms were likely engage in risky sexual behaviour compared to those without (Pozuelo et al, 2022). Moreover, secondary results from the same study also indicate an association between depressive symptoms and increased chances of delinquent behaviour among adolescents (Pozuelo et al, 2022). This combination of depressive symptoms and risky sexual behaviour should be regarded as a public health concern as this may lead to further physical and psychological health problems that may persist throughout a person's lifetime and may lead to health burden for the community (Pozuelo et al, 2022).

Second, there was a positive association between experiencing juvenile victimization or childhood violence and symptoms of depression. These findings resonate with the available literature highlighting that adolescents who have experienced physical violence, sexual abuse and threatening physical injuries are also at increased risk of mental health conditions (Dubé et al., 2018). Moreover, the literature review has revealed that risky sexual behaviours and juvenile victimization represent social or distant level risk factors associated with mental health conditions among adolescents (Pinto et al., 2014). About half of the participants who took part in this study 47.69% (n=62), reported having witnessed violence within their homes or community on the Juvenile Victimization Questionnaire. This was expected as results from a survey conducted among Southern African Development Community (SADC) indicate that Zimbabwe leads other nations on rates of political violence which is at 46% (Research and Advocacy Unit, 2018).

Third, results from this study indicate that high self -esteem among adolescent offenders increases their chances of having symptoms of depression. Although the results are showing that self-esteem is associated with having symptoms of depression, this correlation is usually unlikely as one would expect that decrease in self- esteem would lead to depression. However, this unlikely result from this study to some extent relates with results from a study that was conducted in Malaysia where findings indicate that only 2% of adolescents who participated had symptoms of depression and high self esteem (Masselink, Roekel, & Oldehinkel, 2018).

Fourth, this study found that having a mother who is alive was found to reduce the risk of young offenders experiencing symptoms of depression. Parental attachment can be a protective factor that reduces the chances of having depression symptoms (Guzzo & Gobbi, 2021). Mothers generally provide emotional support to their children hence adolescents

whose mothers are no longer alive may find it difficult to find someone who may provide emotional support. Moreover, improved parent-adolescent communication, sharing activities and emotional warmth are usually associated with fewer mental health conditions due to their protective association against symptoms of depression (Schwendemann, Kuttler, Mößle, & Bitzer, 2018). The majority of participants in this study reported that they were closely attached to their mothers 76.9% (n=100) which may reduce chances of depression, while only 17.7% (n=23) and 4.6% (n=6) reported that they were closely attached to their father and other guardians respectively.

Fifth, adolescents whose mothers were not alive were more likely to experience symptoms of depression. Systematic review on the impact of grief on adolescents show that parental loss may lead to a range of behavioral and emotional problems such as depression and anxiety (Guzzo & Gobbi, 2021). Additionally, literature from this study also indicate that negative life events which include illness within the family or death have also been associated with clinical depression among adolescents (De-la-iglesia & Olivar, 2015).

Finally, findings from this study also indicate that participants who were first time offenders were less likely to have symptoms of depression than repeated offenders. These findings are in agreement with the literature which highlights that social/distal factors associated with mental health conditions among adolescent offenders include gang involvement, school drop-out, bullying, poverty and incarceration (Pinto et al., 2014). This result was expected as the literature indicates that untreated mental health conditions among adolescent offenders can also increase the chances of re-offending (Grisso, 2008). Majority of adolescent offenders who participated in this study were first time offenders 83.8% (n=109) while only 16.2% (n=21) were repeated offenders. This could be another reason why prevalence rates for mental health conditions in this study are low as repeated offenders are more likely to develop symptoms of depression because of being in constant contact with the juvenile justice system.

### **Implications for policy and service delivery**

This study represents the first estimate of the prevalence of mental health conditions among adolescent offenders in Zimbabwe and provides a starting point for professionals working with young offenders to have an understanding of the prevalence and factors associated with these mental health conditions. Our research demonstrated that mental health conditions (depression and anxiety) are prevalent among adolescent offenders within the juvenile justice

system in both urban and rural setting. One of the advantages of this study is that participants were recruited from three urban and three rural districts therefore attempting to make geographical generalizations to the broader juvenile adolescent population. Findings from this study can provide valuable and useful information for professionals who work with adolescent offenders within the juvenile justice system and has several implications for policy and service delivery for adolescent offenders.

### **Implications for policy**

Given the prevalence of mental health conditions among adolescent offenders as highlighted in this study, as well as findings from other studies among general adolescent population, it is important that child and adolescent mental health be made a public health concern in Zimbabwe and included in national policies. The current National Strategic Plan for Mental Health Services 2019-2023, in Zimbabwe makes no referral to the mental health conditions of adolescent offenders (Ministry of health and Child Care, 2023). The plan only mentions the need to raise awareness within schools but does not mention any strategies or efforts to address mental health concerns among adolescent offenders. Considering that results from this study have indicated prevalence of mental health conditions among adolescent offenders, there is need for the authorities to develop and implement policies that address the mental health concerns of adolescent more generally and specifically vulnerable adolescent populations such as offenders going through the juvenile justice system in Zimbabwe.

Despite the prevalence of mental health conditions among adolescent offenders within the juvenile justice system in Zimbabwe, the Criminal Procedures and Evidence Act (Chapter 9:07), Mental Health Act (Chapter 15:12) and the Children's Act (Chapter 5:06) do not specify any procedures to be followed when young offenders within the juvenile justice system are experiencing challenges with mental health conditions. Results from this study lays the foundation for the current mental health and criminal justice legislations to be amended in order to incorporate specific procedures on how to deal with adolescent offenders with mental health conditions.

### **Implications for service delivery**

The findings of this study suggest a gap in the available services available more generally for adolescents, but specifically for adolescent offenders. These findings point to: 1) the introduction of clinical assessments for adolescent offender when appearing at children's

court; 2) integrating mental health screening and services for adolescents within the juvenile justice system; 3) the establishment of specialized Forensic Child and Adolescent Mental Health Services (FCAMHS) within the juvenile justice system; 4) the scaling up the pre-trial diversion programme. These will be discussed in detail.

### **Introduction of clinical assessments for adolescent offender when appearing at children's court**

Given the vulnerability of adolescent offenders, clinical assessments in advance of appearing at the children's courts could have a positive impact on the outcomes of the adolescents. These extensive clinical assessments should then be followed by the provision of evidence based treatment for mental health conditions. There is extensive literature on the effectiveness of cognitive behavioral therapy (CBT), specific psycho-social interventions such as Functional Family Therapy and Dialectical Behavioral therapy. In a quasi-experimental study conducted among female adolescents within 5 juvenile courts in USA to examine the effectiveness of cognitive behavioral therapy in reducing offending, results indicate that CBT can significantly reduce delinquent behaviour (Walker et al., 2019). Results from a systematic review of 31 randomized control trials indicate that cognitive behavioral therapy is effective in reducing symptoms of depression (Oud et al., 2019). Additionally, results from a meta-analysis of 58 experimental studies that were conducted in USA indicate that CBT is an effective intervention that reduces recidivism among juvenile offenders and adults (Lipsey, 2014). Cognitive Behavioral Therapy has been effective in addressing issues such as problem solving, anger management, improved social skills in individual and group treatment (Underwood & Washington, 2016), and this treatment model could be effective in addressing mental health conditions among adolescent offenders in Zimbabwe.

Court Evaluation Clinics have been established in some developed countries such as the United States of America, who make recommendations to the courts on sentencing and decision making for adolescent offenders. For instance, the Cook County (IL) Juvenile Court Clinic was established in the United States of America in order to furnish juvenile courts with timely, accurate and culturally sensitive clinical assessments which will assist judges in decision making (Office of the Juvenile Justice and Delinquency Prevention, 2004). These clinics are made up of psychologists, psychiatrists and other mental health specialist who conduct a number of evaluations for young offenders and their families to establish the most

appropriate treatment needed for adolescents. These models could be adapted for systems in LMIC including Zimbabwe.

The juvenile justice system in most developing countries, particularly in Zimbabwe currently do not offer clinical assessment for adolescent offenders. To achieve this, multi-sectoral training and case management would be essential to introduce clinical assessments optimally. Task sharing programmes also need to be introduced for non-mental health professionals within the juvenile justice system so that they are able to screen and provide mental health first aid in accordance with the WHO Mh GAP. Task sharing model was developed by the World Health Organisation through its Mental Health Gap Action Programme (mh-GAP) in order to reduce treatment gap in LMICs through integrating mental health into primary, community based care by equipping non-mental health specialists to deliver evidence based interventions (Spagnolo & Lal, 2021). In a systematic review of various randomised control studies conducted in LMICs, results indicate that task sharing psychological interventions were associated with significant decrease in depressive symptoms for participants in intervention groups compared to those in control (Karyotaki et al., 2022). This task sharing model has been successfully used in Zimbabwe through the Friendship Bench intervention and this has significantly reduced the treatment gap for mental health conditions among adolescents (Chibanda, 2017). The Friendship Bench intervention refers to a brief psychological intervention delivered by trained lay health workers in primary healthcare settings while being supervised by mental health professionals (Chibanda, 2017). Similarly, the Friendship bench model can be adapted and used within the juvenile justice system in Zimbabwe through training Social Workers, Pre-Trial Diversion Officers, Zimbabwe Republic Police Victim Friendly officers, Superintendents in juvenile residential institutions and other relevant professionals.

### **Integrating mental health screening and services for adolescents within the juvenile justice system**

Results from this study call for the integration of mental health screening and treatment services into the juvenile justice system. Currently the juvenile justice system in Zimbabwe which is administered by the Ministry of Justice and Legal affairs with assistance from the Ministry of labour and Social welfare does not have a clear mental health screening and treatment policy for juvenile offenders. Adolescent offenders who find themselves in the juvenile justice system only receive psycho-social support such as basic counselling from social workers from the Department of Social Development. There are no specialized

screening and treatment services for mental health conditions (depression and anxiety) yet there is a high prevalence of these disorders among this population. Social workers and lawyers who work within the juvenile justice system should be trained to identify symptoms of mental health conditions (Siddig et al., 2016).

Screening generally refers to a process of identifying young offenders who are at risk of developing serious mental health disorders and need evaluations. This process however does not produce an accurate psychiatric evaluation and young offenders who show symptoms of mental health conditions during this process need close monitoring. Assessment on the other hand refer to an individualized and comprehensive examination of one's psychosocial problems and needs detected during the screening stage (Office of the Juvenile Justice and Delinquency Prevention, 2004). Screening and assessment of young offenders within the juvenile justice system is very useful in identifying their psychological needs as well as for recommending rehabilitative and treatment interventions for consideration by the children's court and other correctional programs (Office of the Juvenile Justice and Delinquency Prevention, 2004).

Provision of mental health and psychiatric services for adolescent offenders within the juvenile justice system improve their quality of life at the same time reducing recidivism. Results from a study that examined the quality of life among adolescents with mental health conditions in Ontario province, Canada indicate that adolescents with depressive symptoms reported lower individual and social quality of life (Celebre et al., 2021). Additionally, in a study that examined mental health referral rates and re-offending within the juvenile justice system in USA, results indicate that rates of recidivism were significantly lower among adolescents who were referred to mental health services than those who were not referred (Zeola, Guina, & Nahhas, 2017). Broadening mental health services for adolescents within the juvenile justice system reduces their chances of being in contact with the juvenile justice system in future.

### **Establishment of specialized Forensic Child and Adolescent Mental Health Services (FCAMHS) within the juvenile justice system**

Given the study findings, the establishment of specialized Forensic Child and Adolescent Mental Health Services (FCAMHS) within the juvenile justice system in Zimbabwe is warranted. The word "forensic" meaning a court forum in Greek, has been used when referring to functions such as risk evaluation, identifying needs and the interconnection

between criminal/legal justice and mental health of offenders (Hindley, Lengua, & White, 2017). Forensic can also be defined as “legal” meaning a significant relationship with the court of law which encompass various legal domains related to mental health, criminal law and special tribunals (Young, Greer, & Church, 2017). Specialized forensic services vary from one country to another and forensic psychiatrists assess and treat offenders in courts, police stations, prisons and secure psychiatric hospitals.

HIC such as the United Kingdom have established specialized forensic child and adolescent mental health services which adopt a multi-disciplinary approach that incorporates psychiatry, legal and child development professionals (Young et al., 2017). The adoption of these evidence based therapeutic interventions in the United Kingdom led to a reduction in recidivism among young offenders. Similarly, the USA has also introduced clinical assessments for young offenders within the juvenile justice system.

In Zimbabwe there are only two special forensic psychiatric institutions at Mlondolozi and Chikurubi Maximum prison, and these cater for adults only. Furthermore, there are two bodies responsible safeguarding the rights of offenders with mental health problems, namely the Special Board and the Mental Health Review Tribunal (Kidia et al., 2017). Currently there are no specialized FCAMHS within the juvenile justice system except for the general psycho-social support offered to young offenders by Social Workers from the Ministry of Labour and Social Welfare. The literature reveals that children and adolescents are exposed to socio-ecological risk factors that are different from those for adults, and as such, there is a need for the establishment of standalone FCAMHS for young offenders.

### **Further testing and scale up the pre-trial diversion programme**

The Pre-trial diversion programme in Zimbabwe was established in 2009, seeing the roll out of a pilot programme. This programme empowers the Office of the Prosecutor General in terms of section 9 of the Criminal Law Procedure and Evidence Act (Chapter 9:07) to decide not to prosecute young offenders under the age of 18 years. This can only happen when the young offender is admitting having committed a crime that does not result in a custodial sentence of more than one year. Such pre-trial diversion programmes ensure juvenile offenders take responsibility for their actions whilst preventing them from a criminal record. This programme is being guided by the principles of separating young offenders from adults, preventing them from being in contact with the formal justice system, and ensuring that detention is a last resort.

### **Limitations of the study**

There are various limitations to this study. Firstly, there are disadvantages associated with the selected convenient sampling technique used including possible selection bias and sampling errors. The sample size of 130 participants is relatively small, making it difficult to make inferences or generalizations to the broader population. Data for this study was however collected from three urban and three rural districts, therefore attempting to make geographical generalizations to the broader juvenile adolescent population. Second, the research design that have been used in this study is a cross sectional study and data was collected from participants at one point in time. Limitations of cross-sectional studies include challenges in making inferences on causality through measures of association. As such, it is challenging to determine whether mental health conditions lead to increased rates of offending among adolescents or whether offending and the subsequent repercussions leads to development of mental health conditions. Third, screening tools were used to measure depression and anxiety and these tools have not been validated among adolescent population in Zimbabwe. While this study relied on screening tools, other studies used diagnostic tools such as the Mini International Neuropsychiatric Interview for Children/Adolescents (Siddig et al., 2016) and semi-structured questionnaires derived from Kiddie-SADs (Bella, Atilola, And, & Omigbodun, 2010). Finally, the sample consisted predominately of male adolescents and it did not explore externalizing behaviours which are believed to be more prevalent among female adolescents.

### **Conclusion**

Despite these limitations, this study has estimated the prevalence rates of mental health conditions (Depression and Anxiety) among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province (s), Zimbabwe. It has also highlighted the association between these mental health conditions and factors such as juvenile victimization, history of mental health conditions, risky sexual behaviour and social support to mention a few. This is the first study to show the prevalence rates of these mental health conditions and will contribute to the development of evidence-based interventions aimed at identifying and treating these disorders among adolescent offenders within the juvenile justice system. Several recommendations have also been made laying ground for further research leading to the formulation of evidence-based policies and interventions.

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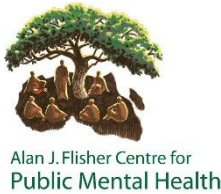
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## APENDIX

### Appendix A- Informed Consent Form (English version)



### **Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.**

**Principal Investigator:** Mr Marshall T Marufu

**Supervisors:** Ms Donnela Bessada, Dr. Petal Petersen Williams, A/Proff Katherine Sorsdahl and Dr Walter Mangezi

**Phone Number:** +263 773 387917

**Version 1.1**

#### **Introduction**

Your child is being invited to take part in this study entitled *“prevalence and factors associated with depression and anxiety among adolescent offenders entering the juvenile justice system”*. The study is being conducted by Marshall T Marufu who is an Mphil in Public Mental Health Student at Allan J Flisher Centre for Public Mental Health at the University of Cape Town. The study will be conducted in Bulawayo Province (Tredgold, Fort Street and Percy Ibbotson) and Matabeleland North Province (Tsholotsho, Lupane and Umguza). Supervisors for this study are Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi.

Before you agree for your child to take part, you should understand what it involves. This information sheet is to help you decide if you want your child to take part in this study. If you have any questions, please ask the project team. You should not agree to this request unless you are happy about all that is involved.

#### **Purpose**

The purpose of this study is to estimate the prevalence of common mental disorders (depression and anxiety) among adolescents entering the juvenile justice system in Bulawayo and Matabeleland North Province. The study will further explore factors that are associated with depression and anxiety among adolescents. Previous studies carried in other countries such as Sudan and Nigeria have shown that there are high rates of common mental disorders in adolescents who enter the juvenile justice system. They have also shown that common

mental disorders may influence recidivism which may lead to adult crime. However, no studies have looked at the prevalence of depression, anxiety and factors associated with these mental disorders among adolescent offenders in Zimbabwe. Your child qualifies to take part in this study as she/he is between 10 and 17 years old and is entering the juvenile justice system.

### **Participants**

This study seeks young males and females aged 10 to 17 years who enter the juvenile justice systems after committing crime. If your child is below 10 years of age, above 18 years and too unwell physically and mentally then unfortunately he/she is not eligible to participate in this study.

### **Procedure and duration**

If you agree for your child to take part this study, he/she will undergo a survey questionnaire which will last between 1 hour to 1hour 20 minutes. Your child will be asked questions about depression, anxiety and factors associated with these mental disorders such as perceived social support, substance misuse and juvenile victimisation. Your child will also be asked questions on sexual risk behaviour and efficacy. The questionnaire will be administered by a trained researcher. The information your child provides will provide us with information needed to estimate the prevalence of potential common mental disorders and explore factors associated with these disorders among adolescent offenders.

### **Potential risks and discomforts**

We do not foresee any risks to your child participating in this study. She/he will never be pressured to answer the questions. If at any point any topics arise that we feel would require a referral, appropriate referrals will be made. Additionally, if your child feels distressed during the study, we will refer him/her for assistance by professional. However, if your child no longer wants to continue participating in the study, she/he will be allowed to do so at any time.

### **Potential benefits of taking part in the study**

There are no direct benefits to your child taking part in this study. However, your child's participation will help us provide suggestions and recommendations to appropriate authorities on how to improve the juvenile justice system.

### **Confidentiality and privacy.**

Any information that your child gives us will remain confidential. We will not share the information with anyone. It will be disclosed only as required by law: (1) If your child tell us that he/she is about to hurt him/herself or someone else, (2) if he/she is being abused or neglected and (3) if she/he is involved in the neglect and/or abuse of a child. In either case, we will report that information to the appropriate authorities.

In order to protect your child, his/her name will not appear on the questionnaire or in any reports of publications on the results and the details provided will not be traceable back to your child. The only confidential information will be on the consent forms, which will be stored in locked filing cabinets. These consent forms will be destroyed after five years of completion of these activities. We will use the information your child provides to write and publish papers in academic journals. Your child's name will not appear anywhere in any published material.

### **Participation and withdrawal**

Participation is voluntary. You can choose for your child not to participate in this study. Your child also can choose not to participate in the interview. If he/she decides to participate, they may choose to stop their participation at any time. There will be no consequences for choosing not to participate or withdrawal. They may also refuse to answer any questions they feel uncomfortable to answer. If your child decides not to participate or withdraw from the study, it will not have a bearing on the judgement which will be given by the Magistrate since the recommendation has already been written down by the Probation Officer on the record of information.

### **Who is funding the study?**

The study is being funded by the African Mental Health Research Initiative (AMARI).

### **Reimbursement**

There will be no cost for you and your child since the study will be done at your home. However, your child will receive refreshments to compensate for the time he/she will spend participating in the study. You will not be reimbursed for transport costs since you will only meet the researcher once when they come at your house during the follow up visit.

### **Rights of participants.**

This study has been approved by the University of Cape Town Faculty of Health Science Human Research Ethics Committee (HREC). The study has also been approved by the Medical Research Council of Zimbabwe, and it will be conducted according international Guidelines for Good Clinical Practice. If you have any questions about your rights as a participant, concerns or complaints, please call the Medical Research Council of Zimbabwe (MRCZ), telephone number +263 (4) 791792.

### **Who to contact with questions**

If you have any questions or concerns about the research, please contact the following people  
1. Prof. Katherine Sorsdahl at +27 21 650 4798, [Katherine.sorsdahl@uct.ac.za](mailto:Katherine.sorsdahl@uct.ac.za)  
2. Marshall T Marufu +263 773 387 917, [marshymarufu@gmail.com](mailto:marshymarufu@gmail.com),  
3. Dr Walter Mangezi +263 774 342 615, [wmangezi@yahoo.co.uk](mailto:wmangezi@yahoo.co.uk)

### **Authorisation**

I have read this paper about the study or it was read to me. I understand the possible risks and benefits of this study. I know being in this study is voluntary. I choose to be in this study: I know I can stop being in the study and I will not lose any benefits entitled to me. I will get a copy of this consent form.

**Indicating consent**

Please let us know if you have any questions before checking this consent form. Please check each item to show that you agree to what is required (leave blank if you do not agree):

Agree	
	I agree for my child to take part in this study, which has been fully described to me.
	I understand that my child’s participation in this group discussion is completely voluntary, and there will be no penalty if he/she chooses not to participate.

**Signing this consent form indicates that you have read this consent form (or have had it read to you), that your questions have been answered to your satisfaction, and that you voluntarily agree for your child**

\_\_\_\_\_ (full name of parent/guardian) to participate in this research study. You will receive a copy of this signed consent form.

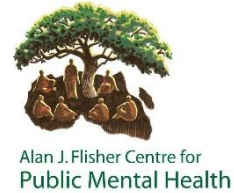
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**Parent** (Signature and Printed Name) **Date**

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**Person Obtaining Consent (Signature and Printed Name)** **Date**

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**Witness (Signature and Printed Name)** **Date**

\*A witness is required if the research patient or legal representative cannot read (e.g. blind or illiterate) or if it is required by the study plan. The witness should participate in all of the discussions with regards to the participant research during the consent process. By signing this consent term, the witness guarantees that all the information within the consent has been explained to the participant, and that the consent seemed to have been understood and given by free will.

## Appendix A I : Informed Consent (Shona Version)



### Caregiver consent form for adolescents

## Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.

**Mukuru wetsvakiridzo:** Mr Marshall T Marufu

**Supervisors:** Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi

**Nhamba dzerunhare:** +263 773 387917

**Version 1.1**

### Nhanganyaya

Mwana wenyu ari kukokwa kuti apinde mutsvakuridzo inonzi “*Prevalence and factors associated with depression and anxiety among adolescents’ offenders entering the juvenile justice system*”. Tsvakiridzo iyi iri kuitwa naMarshall T Marufu arikuita Mphil in Public Mental Health pa Allan J Flisher Centre for Public Mental Health iriku University of Cape Town. Tsvakiridzo iyi irikuitirwa kudzimba kwevana vakaunzwa pamahofisi eSocial Welfare kuBulawayo (Tredgold, Fort Street ne Percy Ibbotson) neku Matabeleland North Province (Tsholotsho, Lupane neUmguza) mushure mekunge vapara mhosva. Vachange vachifundisa Marshall T Marufu mutsvagiridzo iyi ndi Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr Petal Petersen Williams, na Dr Walter Mangezi.

Musati maiita sarudzo yekuti mwana wenyu ave mutsvakiridzo zvakakosha kuti muverenge pamwechete nekunzwisisa kuti tsvakiridzo iyi iri kuitirwei uye kuti ichange ichiita nezvei. Bepa iri rinokubatsirai kuti multe sarudzo yekuti mwana wenyu apinde mutsvakiridzo iyi kana kuti asapinde. Kana muine mibvunzo bvunzai umwe wevarikuita tsvakiridzo. Musabvume kuvemutsvakiridzo iyi kunze kwekunge manzwisisa zvichaitwa.

### Chinangwa

Chinangwa chetsvakiridzo ino ndechekuda kunzwisisa huwandu hwechirwere chepfungwa cheDepression ne Anxiety kuvana varikupinda mumatare edzomhosva evana vadidki Vanenge vaunzwa kumahofisi eSocial welfare kuBulawayo (Tredgold, Forth Street and Percy Ibbotson) neku Matabeleland North Province (Tsholotsho, Lupane and Umguza) district offices. Tsvakiridzo ino ichaongorora zvakare hukama huri pakati pekufungisisa, kuzvidya moyo, nezvimwe zvinodyidzana nematambudziko aya. Dzimwe tsvakiridzo dzakaitwa kune

dzimwe nyika dzakaita seSudan neNigeria dzakaraidza huwanda hwechirwere chepfungwa cheDepression ne Anxiety kuvana varikupinda mumatare edzomhosva evana vadidki. Dzakaraidza zvekare kuti chirwere chepfungwa che Depression neAnxiety chinoit kuti vechidiko ava vapare mhosva zvekare iye vanogona kuenderera mberi vachipara mhosva nyangwe vakura. Muno muZimbabwe hapana tsvakiridzo yati yaitwa ichitarisa huwanda hwechirwere chepfungwa cheDepression ne Anxiety kuvana varikupinda mumatare edzomhosva evana vadidki. Mwana wenyu akakodzera kuve mutsvakiridzo iyi nekuti ane makore aripakati pemakore gumi negumi nemanomwe ekuzvarwa uye akatarisira kupinda mudare redzimhosva revadiki.

### **Vanhu vachange mutsvakiridzo**

Vanhu vachange vari mutsvakiridzo ino vakomana nevasikana vechidiki vari pakati pemakore gumi negumi nemanomwe ekuzvarwa varikutarisira kupinda mumatare edzimhosva evana vadiki mushure mekunge vapara mhosva. Kana mwana wenyu aine makore ari pasi pegumi ekuzvarwa kana kuti makore ake achipfuura gumi nemasere kana kuti asirikunzwa zvakanaka pamuviri wake uye mupfungwa dzake ndinehurombo haakwanise kunge achipinda mutsvakiridzo iyi.

### **Zvichaitwa neNguva**

Kana muchinge masarudza kuti mwana wenyu apinde mutsvakiridzo ino, tichamubvunza mibvunzo kwenguva inokwana kusvika awa rimwe nemaminitsi makumi maviri. Mibvunzo iyi ichange ine chekuita nekufungisisa, kuzvidya moyo nezvimwe zvinodyidzana nezvirwere zvepfungwa izvi zvakaita serutsigiro kubva kune vehukama, kunwa zvinodhaka pamwe nekushungurudzwa kwavanogona kunge vakambosangana nako. Mwana wenyu achabvunzwa zvekare mibvunzo maererano nenjodzi dzekuita zvepabonde uye kuti anokwanisa kuita sarudzo here maererano nezvi. Mibvunzo iyi ichange ichibvunzwa nemunhu akadzizdiswa nezvetsvakiridzo. Ruzivo rwatichapiwa nemwana wenyu rwuchatibatsira kuona huwanda hwezvirwere zvepfungwa uye kuongorora zvimwe zvinodyidzana nezvirwere izvi.

### **Njodzi kana Matambudziko**

Hatitarisire kuti mwana wenyu angasangana nenjodzi yakanyanya akapinda mutsvakiridzo iyi. Zvakare mwana wenyu haasi kuzomanikidzwa kupindura mibvunzo iyi. Kana paine zvabuda muhurukuro iyi zvatinooona kuti zvinokodzera kuti timuendese kune vamwe ana mazvikokota kuti abatsirwe, tichamutumira kwakakodzera. Zvakare kana mwana akanzwa kusagadzikana mutsvakiridzo iyi, tichamuendesa kunaana mazvikokota vakakodzera abatsirwe. Kana mwana wenyu anzwa kuti haachakwanise kuenderera mberi netsvakiridzo iyi anobvumidzwa kubuda mutsvakiridzo chero nguva.

### **Zvichawanikwa mutsvakiridzo**

Mwana wenyu anogona kusawana rubatsiro rwakanangana naye mutsvakiridzo iyi. Asi kuwemo mutsvakiridzo kwemwana wenyu kuchatibatsira kuisa zvichemo kuvakuru zvekuti vana varikupinda mumatare edzimhosva evadiki vawane rubatsiro rwakafanira.

### **Zvakavanzika**

Zvese zvichataurwa nemwana wenyu mutsvakiridzo iyi zvichange zvakavanzika. Hatisi kuzozviudza vamwe vanhu. Zvichangoburitswa kana mutemo uchibvuma kuti zvibude (1) Kana mwana wenyu atiudza kuti kuti arikufunga kuzvikuvadza kana kukuvadza umwe munhu, (2) kana arikushungurudzwa uye (3) kana achiwanikwa mukushungurudzwa kweumwe mwana. Kana zvakadaro zvikaitika tichamhan'ara kune vakakodzera.

Tichachengetedza zita remwana wenyu nekusarinyora pabepa remibvunzo kana munezvimwe zvinyorwa maererano nezvichabuda mutsvakiridzo uye zvese izvi hazvisikuzoratidza kuti mwana wenyu aive mutsvakiridzo. Zvakavanzika zvichawanika chete pagwaro rewirirano iro richange richichengeterwa mumaCup board akakiyiwa. Magwaro ewirirano aya achazopiswa mushure memekore mashanu tsvakiridzo iyi yapera. Tichashandisa zvataurwa nemwana wenyu kunyora mapepa mumapema efundo. Zita remwana wenyu haribude mumapepa iwaya.

### **Sarudzo yekuvamustvakiridzo nekubuda**

Kuva mutsvakiridzo kwemwana wenyu hamumanikidzwe. Munogona kuti mwana wenyu asave mutsvakiridzo iyi zvirikwamuri. Mwana wenyu anogonawo kusarudza kusava mutsvakiridzo ino zvekare. Kana mwana wenyu asarudza kuve mutsvakiridzo anogona zvekare kubudamo paanenge adira. Hapana zvakashata zvinoitika kana masarudza kusava mutsvakiridzo kana kubudamo chero nguva. Mwana anogonazve kusapindura mimwe mibvunzo yaanenge asina kusununguka kupindura. Kana mwana wenyu asarudza kusave mutsvakiridzo kana kubuda chero nguva hazvikanganise mutongo uchapihwa kudare redzimhosva sezvo Probation Officer atonyora kare zvaanoona zvakakodzera pamapepa ake.

### **Arikubhadhara tsvakiridzo iyi**

Tsvakiridzo iyi irikubhadharwa ne African Mental Health Research Initiative (AMARI).

### **Mubhadharo nemuripo**

Hapana chamunobhadhara imi nemwana sezvo varikuita tsvakiridzo iyi vachakushanyirai kumba kwenyu. Zvakadaro mwana wenyu achapiwa zvinwiwa kuripira nguva yake yaachange ari mutsvakiridzo. Hapana mari yekuwira bhazi yamuchazopiwa sezvo muchangosangana nevatsvakiridzi kamwe chete pavanouya kumba kwenyu.

### **Kodzero dzevapinda mutsvakiridzo**

Tsvakiridzo iyi yabvumirwa neve University of Cape Town Faculty of Health Science Human Research Ethics Committee (HREC). Yabvumirwa zvekare neve Medical Research Council of Zimbabwe uye ichaitwa nenzira yakanaka yekuchengetedza kodzero dzevari mutsvakiridzo zvinokosheswa pasi rese. Kana uine mubvunzo maererano nelodzero dzako wakasununguka kufonera veMedical Research Council of Zimbabwe panamba dzinoti +263 (4) 791792.

### **Wekutaura naye kana muine mibvunzo**

Kana muine mibvunzo maererano nekodzera dzemwana wenyu kana kunyunyuta maererano netsvakiridzo iyi munokwanisa kuphonera vanotevera: 1.Proffessor. Katherine Sorsdahl at +27 21 650 4798, [Katherine.sorsdahl@uct.ac.za](mailto:Katherine.sorsdahl@uct.ac.za) 2.Marshall T Marufu +263 773 387 917, [marshymarufu@gmail.com](mailto:marshymarufu@gmail.com), 3. Dr Walter Mangezi +263 774 342 615, [wmangezi@yahoo.co.uk](mailto:wmangezi@yahoo.co.uk)

### **Kubvumidza**

Ndaverenga gwaro iri retsvakiridzo kana kuti ndariverengerwa. Ndanzwisisa njodzi nematambudziko uye zvakakoshera tsvakiridzo iyi. Ndinoziva kuti mwana wangu anopinda mutsvakiridzo iyi nekuda kwake. Mwana wangu asarudza kuve mutsvakiridzo iyi uye anokwanisa kusarudza kubuda mutsvakiridzo asi avaakakodera kuwana zvisingakanganisike. Ndichapiwa rimwe gwaro rewirirano iri.

### **Kuratidza kubvuma**

Ndapota titaurirei kana muine mibvunzo musati matarisa gwaro rewirirano iri. Tarisai zvakare zvakanyorwa pagwaro iri kuratidza kuti murikuwirirana nezvinodiwa (musanyore kana musingawirirane nazvo):

Ndobvumirana nazvo	
	Ndobvuma kuti mwana apinde mutsvakiridzo iyi yatsanangurwa zvizere kwandiri.
	Ndanzwisisa zvekare kuti kuvemo mutsvakiridzo kwemwana wangu kuda kwake uye hapana mutongo waanopihwa kana akasarudza kusave mutsvakiridzo.

**Kusaina gwaro iri kunoratidza kuti mariverenga (kana kuti mariverengerwa), nekuti mibvunzo yenyu yapindurwa zvakugutsai uye mabvuma kuti mwana wenyu apinde mutsvakiridzo.**

\_\_\_\_\_ (Zita rizere remubereki) wemwana arikupinda mutsvakiridzo. Muchapiwa rimwe gwaro rakasainwa.

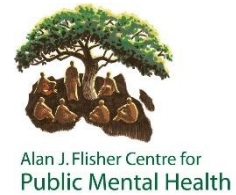
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**Mubereki** (Sainecha neZita) **Zuva**

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**Mutsvakiridzi** (Sainecha neZita) **Zuva**

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**Mufakazi** (Sainecha neZita) **Zuva**

\*Mufakazi anodiwa kana arikupinda mutsvakiridzo kana gweta rake risingakwanise kuverenga (asingaone kana asingagone kuverenga) uye kana zvanzi zvakakodzera. Mufakazi uyu achange aripo pese pachakurukurwa neapinda mutsvakiridzo nepakubvumirana. Kusaina gwaro iri nemufakazi kunoratidza kuti arikupinda mutsvakiridzo apiwa ruzivo rwakakwana uye apinda nekuda kwake.

## Appendix A II: Informed Consent (isiNdebele version)



### Caregiver consent form for adolescents

## Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.

**Principal Investigator:** Mr Marshall T Marufu

**Supervisors:** Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi

**Inombolo yencingo:** +263 773 387917

**Version 1.1**

### Ukuqalisa

Sicela imvumo yokuthi umtanakho aphaatheke kuchwayisiso olulesihloko esithi “*Prevalence and factors associated with depression and anxiety among adolescents’ offenders entering the juvenile justice system*”. Loluchwayisiso liyenziwa nguMarshall T Marufu umfundi kubanga eliphezulu iMphil in Public Mental Health e Alan J Flisher Centre for Public Mental Health eUniversity yeCape Town. Loluchwayisiso luzayenziwa koBulawayo (Tredgold, Fort Street lase Percy Ibbotson) lase Matabeleland North Province (Tsholotsho, Lupane leUmguza) Ngizabe ngilwenza ngingaphansi kubaqeqeshi bami Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr Petal Petersen Williams, lo Dr Walter Mangezi.

Ungakavumi ukuthi umtanakho aphaatheki, kuqakathekile ukuthi uzwisise ukuthi lumayelana lani. Leli phepha ngelokukuncedisa ukuthi wenze isinqumo sokuthi umtanakho aphaatheke kuloluchwayisiso. Nxa ulombuzo khululeka ubuze umkhokheli waloluchwayisiso. Ungavumi nxa ungazwisisanga ngokweneleyo ngokuzakwenzeka.

### Injongo

Injongo yaloluchwayisiso yikuzama ukubakwazi inani labantu abalomkhuhlane wengqondo (Ukudangala komoya, lokungahlaliseki) kwabasakhulayo abasanda kuthomba abathintana lomthetho ngoba bonile koBulawayo lase Matabeleland North Province. Loluchwayisiso luzaqgubeka lukhangela izinto ezixhumana lokudangala komphefumulo lokungahlaliseki komoya kwabasakhulayo. Uxhwayisiso oluke lwenziwa eSudan leNigeria lutshengise ukuthi kulamanani amanengi emkhuhlane wengqondo kwabasakhulayo abathintana lomthetho ngoba bewonile. Kubuye kwavela ukuthi imkhuhlane yegqondo ingabangela impilo yobugebenga sebekhulile, kodwa ke akula chwayisiso olutshengisa inani lokudangala

komphefumulo lokungahlaliseki komoya lezimpawu eziphatelana lemkhuhlane yengqondo kwabasakhulayo abeZimbabwe abathintana lomthetho ngoba bonile. Umtanakho uyaphatheka kuloluhlelo ngoba eleminyaka elitshumi kusiya kutshumi lasikhombisa eyokuzalwa njalo uthintana lomthetho ngoba ewonile.

### **Abaphathekayo**

Loluchwayisiso lufuna kakhulu abantwana abangamankazana labangabafana abaleminyaka elitshumi kusiya kutshumi lasikhombisa, abathintana lomthetho ngoba bewonile. Nxa umtanakho engaphansi kweminyaka elitshumi eyokuzalwa kumbe ephezu kweminyaka elitshumi lasitshiya galo mbili, njalo engaphilanga emzimbeni kumbe engqondweni, ngiyaxolisa ngeke apatheke kulolu chwayisiso.

### **Isikhathi**

Nxa uvuma ukuthi umtanakho apatheke kuloluchwayisiso, uyabe ezabuzwa imbuzo ehleliweyo ezathatha isikhathi esiphosa sibe lihola kumbe ihola elilemizuzu engamatshumi amabili phezulu. Umtanakho uzabuzwa imbuzo mayelana ngokudangala komphefumulo, lokungahlaliseki komoya, lempawu eziphatelana lalomkhuhlane wengqondo, ezinjengokuxhaswa yimuli, ukusebenzisa izidaka mizwa lokuhlukunyezwa ngumthetho nxa ewonile. Uzaphinda abuzwe umtanakho imbuzo ephathelene lezenzo ezilokwenza ngezemacansini ezidonsela ingozi lokuzithemba kwakhe.

Imbuzo leyi izabuzwa ngumuntu okuqeqetsheleyo ukubuza imbuzo ehleliweyo. Impendulo umtwana azazipha zizasetshenziswa ukucabangela inani labantwana abalemikhuhlane yengqondo, sikhangele lezimpawu ezihambelana lolowu mkhuhlane kwabasakhulayo.

### **Izingozi lokungahlaliseki**

Asikhangelelanga ngozi kumtanakho nxa ephatheka kuloluchwayisiso. Akasoze abanjwe ngamandla ukuphendula imbuzo. Nxa kungenzeka phakathi kwembuzo yochwayisiso sibone ukuthi sizadinga ukuncediswa, amanyathela azathathwa ukuze loloncedo lutholakale. Nxa umtanakho engazizwa ehlukekile ngemibuzo esiyibuzayo, sizamtholela uncedo. Nxa umtwana engazizwa engasafuni kuphatheka kuchwayisiso lolu ukhululekile ukuphuma.

### **Inzunzo yokuphatheka kuloluchwayisiso**

Akulazunzo emasinyane esiyikhangeleleyo kumtanakho, kodwa kuzasancedisa ukuthi sincede abanye abantwana ngamacebo azahlomisa abakhangele ngabantwana abathintana lomthetho ngoba bewonile ukuthi uhlelo lolu luhambe kuhle.

### **Imfihlakalo**

Izimpendulo esizithola kumtanakho zizabe ziyimfihlo. Azisoze ziphiwe omunye umuntu. Zizakhitshwa kuphela nxa kudingeka ngabomthetho(1) Nxa umtanakho engasitshela ukuthi usengozini yokuzilimaza kumbe eyokulimaza omunye umuntu.(2) Nxa ehlukekile kumbe enganakekelwa (3)Nxa kunguye ohlukumeza omunye umtwana.

Ukuze sivikile umtwana ibizo lakhe alisoze libhalwe phansi, njalo akusoze kube lendlela yokuxhumanisa ukuthi nguye owapha lezo mpendulo. Imbali yakhe izaba kuform lesivumelwano elizabekwa endaweni ekhatshana efihlekileyo. Lawa maphepha azatshiswa ngemva kweminyaka emihlanu esetshinzisiwe. Okhuyabe kuphumile kuloluchwayisiso kuzabhalwa emaphepeni ezinfundo kodwa ibizo lomtwana kalisoze liphume.

### **Ukuphatheka lokuphuma kuchwayisiso**

Ukuphatheka kuya ngokuthanda kwakho. Usungakhetha ukuthi umtanakho engaphatheki kumbe yena umtwana akhetha ukungaphatheki. Nxa engakhetha ukuphatheka, ukhululekile ukumisa imbuzo ngesikhathi asifungayo. Akusoze kube lesijeziso. Umtwana sengayala ukuphedula imbuzo ayizwa imhlokumeza. Nxa umtwana engakhetha ukumisa imbuzo phakathi kochwayisiso akula mthelela kusigwebo esizaphiwa nguMantshi ngoba amapaper kudala ebhaliwe nguProbation officer

### **Ngubani oncedisa ngemali yaloluchwayisiso**

Loluchwayisiso luncediswa ngemali ngabe African Mental Health Research Initiative (AMARI)

### **Ukubiselwa imali**

Akusoze kubelendleko kuwe kumbe kumtanakho ukuba yingxenywe yaloluchwayisiso ngoba labazabuza imbuzo bazalilandela ngekhaya. Kodwa ke umtanakho uzathola okokudla okuncane ngesikhathi elathi. Alisoze liphiwe imali yokugada njengoba lizahlangana labazabuza imbuzo leyi bazalivhakatshele kanye endlini.

### **Amalungelo abaphathekayo**

Loluchwayisiso luvunyelwe yi University of Capetown Faculty of Health Science Human Research Ethics Committee (HREC). Lulochwayisiso luvunyelwe futhi ngabe hofisi yeMedical Research Council of Zimbabwe. Njalo luzahlelwa ngokulaywa yi International Guidelines for Good Clinical Practice. Nxa ulembuzo ngamalungelo akho khululeka ufonele abe Medical Research Council of Zimbabwe (MRCZ), inombolo zencingo +263 (4) 791792.

### **Ubuza bani nxa ulembuzo.**

Nxa ulembuzo ngaloluchwayisiso xhumana labantu abalandelayo 1) Proffesor Katherine Sorsdahl ku +27216504798, [Katherine.sorsdahl@uct.ac.za](mailto:Katherine.sorsdahl@uct.ac.za) 2) Marshal T Marufu +263773387917, [marshymarufu@gmail.com](mailto:marshymarufu@gmail.com) 3) Dr Walter Mangezi +263774342615 [wmangezi@yahoo.com](mailto:wmangezi@yahoo.com)

### **Imvumo**

Ngibalile leliphepha, kumbe ngilibalelwe. Ngyazwisisa ubungozi lenzuzo yokuba yingxenywe yaloluchwayisiso, byakwazi ukuthi ukuphatheka kusemandleni ami. Ngingakhetha ukuphatheka, ngyenelisa ukuma nxa ngingasafuni ukuqhubeka, kungelasijeziso. Ngizathola icopy yaleliphepha.

## Ukutshengisa isivumelwano

Sicela usazise nxa ulembuzo ungakabhali leyi iform, bhala kumutsho munye ngamunye kutshengise ukuthi uyakwazi okukhangelelwe kuwe. (utshiye kungabhalwanga nxa ungavumi).

<b>Ngiyavuma</b>	
	Ngiyavuma ukuthi umtanami aphaatheke kuloluchwayisiso, engiluchasiselweyo ngokujulileyo.
	Ngiyezwisisa ukuthi ukuphatheka komtanami kuloluchwayiso kuya ngokuthanda kwakhe, njalo akulasijeziso nxa engakhetha ukungaphatheki

**Ukubhala leli phepha kutshengisa ukuthi ubalile, kumbe ubalelwe, imbuzo yakho yonke yaphendulwa ngokukusuthisayo wasuvuma ukuthi umtanakho aphaatheke**

\_\_\_\_\_ (ibizo lakho ngokugewala) ukuthi aphaatheke kuloluchwayisiso. (Uzaphiwa elinye laleliphepha)

-----  
**Umzali**

**(Ibizo le Signature)**

**Date**

-----  
**Umuntu othatha leli phepha ( Ibizo leSignature)**

**Date**

-----  
**Umfakazi**

**(Ibizo leSignature )**

**Date**

**\*Kuyadingeka umfakazi nxa ophathekayo kumbe omelayo engenelisi ukubala(kaboni kumbe kafundanga) . Umfakazi uyaphatheka kuzo zonke ingxoxo. Umfakazi uqinisekisa ukuthi konke okuxoxwayo kuchasisiwe kwazwisiswa ngophathekayo**

## Appendix B - Assent Form (English version)



Alan J. Flisher Centre for  
Public Mental Health



### Assent form for adolescents

**Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.**

**Principal Investigator:** Mr Marshall T Marufu

**Supervisors:** Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi

**Phone Number:** +263 773 387917

**Version 1.1**

### Introduction

You are being invited to take part in this study entitled “*prevalence and factors associated with depression and anxiety among adolescent offenders entering the juvenile justice system*”. The study is being conducted by Marshall T Marufu who is an Mphil in Public Mental Health Student at Allan J Flisher Centre for Public Mental Health at the University of Cape Town. The study will be conducted in Bulawayo Province (Tredgold, Fort Street and Percy Ibbotson) and Matabeleland North Province (Tsholotsho, Lupane and Umguza). Supervisors for this study are Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi.

Before you agree to take part, you should understand what it involves. This information sheet is to help you decide if you want to take part in this study. If you have any questions, please ask the project team. You should not agree to this request unless you are happy about all that is involved.

### Purpose

The purpose of this study is to estimate the prevalence of common mental disorders (depression and anxiety) among adolescents entering the juvenile justice system in Bulawayo and Matabeleland North Province. The study will further explore factors that are associated with depression and anxiety among adolescents. Previous studies carried in other countries such as Sudan and Nigeria have shown that there are high rates of common mental disorders in adolescents who enter the juvenile justice system. They have also shown that common mental disorders may influence recidivism which may lead to adult crime. However, no studies have looked at the prevalence of depression, anxiety and factors associated with these

mental disorders among adolescent offenders in Zimbabwe. You qualify to take part in this study because you are between 10 and 17 years old, entering the juvenile justice system.

### **Participants**

This study seeks young males and females aged 10 to 17 years who enter the juvenile justice systems after committing crime. If you are below 10 years of age, above 18 years and too unwell physically and mentally then unfortunately you are not eligible to participate in this study.

### **Procedure and duration**

If you agree to take part this study, you will undergo a survey questionnaire which will last between 1 hour to 1hour 20 minutes. You will be asked questions about depression, anxiety and factors associated with these mental disorders such as perceived social support, substance misuse and juvenile victimisation. You will also be asked questions on sexual risk behaviour and efficacy. The questionnaire will be administered by a trained researcher. The information you provide us will be useful when estimating the prevalence of potential common mental disorders and explore factors associated with these disorders among adolescent offenders.

### **Potential risks and discomforts**

We do not foresee any risks to you participating in this study. You will never be pressured to answer the questions. If at any point any topics arise that we feel would require a referral, appropriate referrals will be made. Additionally, if you feel distressed during the study, we will refer you for assistance by professional. However, if you no longer want to continue participating in the study, you will be allowed to do so at any time.

### **Potential benefits of taking part in the study**

There are no direct benefits for you taking part in this study. However, your participation will help us provide suggestions and recommendations to appropriate authorities on how to improve the juvenile justice system.

### **Confidentiality and privacy.**

Any information that you give us will remain confidential. We will not share the information with anyone. It will be disclosed only as required by law: (1) If you tell us that you are about to hurt yourself or someone else, (2) if you are being abused or neglected and (3) if you are involved in the neglect and/or abuse of a child. In either case, we will report that information to the appropriate authorities.

In order to protect you, your name will not appear on the questionnaire or in any reports of publications on the results and the details provided will not be traceable back to you. The only confidential information will be on the consent forms, which will be stored in locked filing cabinets. These consent forms will be destroyed after five years of completion of these activities. We will use the information you provide to write and publish papers in academic journals. Your name will not appear anywhere in any published material.

## **Participation and withdrawal**

Participation is voluntary. You can choose not to participate in this study. You also can choose not to participate in the interview. If you decide to participate, you may choose to stop participating at any time. There will be no consequences for choosing not to participate or withdrawal. You may also refuse to answer any questions you feel uncomfortable to answer. If you decide not to participate or withdraw from the study, it will not have a bearing on the judgement which will be given by the Magistrate since the recommendation has already been written down by the Probation Officer on the record of information.

## **Who is funding the study?**

The study is being funded by the African Mental Health Research Initiative (AMARI).

## **Reimbursement**

There will be no cost for you and your parent since the study will be done at your home. However, you will receive refreshments to compensate for the time you will spend participating in the study. You will not be reimbursed for transport costs since you will only meet the researcher once when they come at your house during the follow up visit.

## **Rights of participants.**

This study has been approved by the University of Cape Town Faculty of Health Science Human Research Ethics Committee (HREC). The study has also been approved by the Medical Research Council of Zimbabwe, and it will be conducted according to international Guidelines for Good Clinical Practice. If you have any questions about your rights as a participant, concerns or complaints, please call the Medical Research Council of Zimbabwe (MRCZ), telephone number +263 (4) 791792.

## **Who to contact with questions**

If you have any questions or concerns about the research, please contact the following people  
1. Prof. Katherine Sorsdahl at +27 21 650 4798, [Katherine.sorsdahl@uct.ac.za](mailto:Katherine.sorsdahl@uct.ac.za)  
2. Marshall T Marufu +263 773 387 917, [marshymarufu@gmail.com](mailto:marshymarufu@gmail.com),  
3. Dr Walter Mangezi +263 774 342 615, [wmangezi@yahoo.co.uk](mailto:wmangezi@yahoo.co.uk)

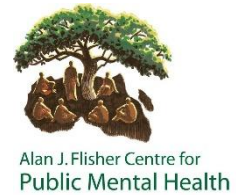
## **Authorisation**

I have read this paper about the study or it was read to me. I understand the possible risks and benefits of this study. I know being in this study is voluntary. I choose to be in this study: I know I can stop being in the study and I will not lose any benefits entitled to me. I will get a copy of this consent form.

## **Indicating consent**



## Appendix B I: Assent form (Shona Version)



### Assent form for adolescents

## Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.

**Mukuru wetsvakiridzo:** Mr Marshall T Marufu

**Supervisors:** Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi

**Nhamba dzerunhare:** +263 773 387917

**Version 1.1**

### Nhanganyaya

Tirikukukoka kuti upinde mutsvakiridzo inonzi “*Prevalence and factors associated with depression and anxiety among adolescents’ offenders entering the juvenile justice system*”. Tsvakiridzo iyi iri kuitwa naMarshall T Marufu arikuita Mphil in Public Mental Health pa Allan J Flisher Centre for Public Mental Health iriku University of Cape Town. Tsvakiridzo iyi irikuitirwa kudzimba kwevana vakaunzwa pamahofisi eSocial Welfare kuBulawayo (Tredgold, Fort Street ne Percy Ibottson) neku Matabeleland North Province (Tsholotsho, Lupane neUmguza) mushure mekunge vapara mhosva. Vachange vachifundisa Marshall T Marufu mutsvagiridzo iyi ndi Proffessor Katherine Sorsdahl, Ms Donnela Bessada, Dr Petal Petersen Williams, na Dr Walter Mangezi.

Usati waiita sarudzo yekuti upinde mutsvakiridzo zvakakosha kuti uverenge pamwechete nekunzwisisa kuti tsvakiridzo iyi iri kuitirwei uye kuti ichange ichiita nezvei. Bepa iri rinokubatsirai kuti uite sarudzo yekuti upinde mutsvakiridzo iyi kana kuti usapinde. Kana uine mibvunzo bvunza umwe wevarikuita tsvakiridzo. Uusabvume kuvemutsvakiridzo iyi kunze kwekunge wanzwisisa zvichaitwa.

### Chinangwa

Chinangwa chetsvakiridzo ino ndechekuda kunzwisisa huwandu hwechirwere chepfungwa cheDepression ne Anxiety kuvana varikupinda mumatare edzomhosva evana vadidki vanenge vaunzwa kumahofisi eSocial welfare kuBulawayo (Tredgold, Forth Street and Percy Ibottson) neku Matabeleland North Province (Tsholotsho, Lupane and Umguza) district offices. Tsvakiridzo ino ichaongorora zvakare hukama huri pakati pekufungisisa, kuzvidya moyo, nezvimwe zvinodyidzana nematambudziko aya. Dzimwe tsvakiridzo dzakaitwa kune

dzimwe nyika dzakaita seSudan neNigeria dzakararatidza huwandu hwechirwere chepfungwa cheDepression ne Anxiety kuvana varikupinda mumatare edzomhosva evana vadidki. Dzakararatidza zvekare kuti chirwere chepfungwa che Depression neAnxiety chinoita kuti vechidiki ava vapare mhosva zvekare iye vanogona kuenderera mberi vachipara mhosva nyangwe vakura. Muno muZimbabwe hapana tsvakiridzo yati yaitwa ichitarisa huwandu hwechirwere chepfungwa cheDepression ne Anxiety kuvana varikupinda mumatare edzomhosva evana vadidki. Iwe wakakodzera kuve mutsvakiridzo iyi nekuti une makore aripakati pemakore gumi negumi nemanomwe ekuzvarwa uye urikatarisira kupinda mudare redzimhosva revadiki.

### **Vanhu vachange mutsvakiridzo**

Vanhu vachange vari mutsvakiridzo ino vakomana nevasikana vechidiki vari pakati pemakore gumi kusvika gumi nemanomwe ekuzvarwa varikutarisira kupinda mumatare edzimhosva evana vadiki mushure mekunge vapara mhosva. Kana uine makore ari pasi pegumi ekuzvarwa kana kuti makore ako achipfuura gumi nemasere kana kuti usirikunzwa zvakanaka pamuviri wako uye mupfungwa dzako ndinehurombo haukwanise kunge achipinda mutsvakiridzo iyi.

### **Zvichaitwa neNguva**

Kana uchinge wasarudza kuti upinde mutsvakiridzo ino, tichamubvunza mibvunzo kwenguva inokwana kusvika awa rimwe nemaminitsi makumi maviri. Mibvunzo iyi ichange ine chekuita nekufungisisa, kuzvidya moyo nezvimwe zvinodyidzana nezvirwere zvepfungwa izvi zvakaita serutsigiro kubva kune vehukama, kunwa zvinodhaka pamwe nekushungurudzwa kwaunogona kunge wakambosangana nako. Tichakubvunza zvekare mibvunzo maererano nenjodzi dzekuita zvepabonde uye kuti unokwanisa kuita sarudzo here maererano neizvi. Mibvunzo iyi ichange ichibvunzwa nemunhu akadzizdiswa nezvetsvakiridzo. Ruzivo rwauchatipa rwuchatibatsira kuona huwandu hwezvirwere zvepfungwa uye kuongorora zvimwe zvinodyidzana nezvirwere izvi.

### **Njodzi kana Matambudziko**

Hatitarisire kuti ungasangana nenjodzi yakanyanya ukapinda mutsvakiridzo iyi. Zvakare hausi kuzomanikidzwa kupindura mibvunzo iyi. Kana paine zvabuda muhurukuro iyi zvatinoona kuti zvinokodzera kuti tikuendese kune vamwe ana mazvikokota kuti ubatsirwe, tichakutumira kwakakodzera. Zvakare kana ukanzwa kusagadzikana mutsvakiridzo iyi, tichakuendesa kunaana mazvikokota vakakodzera ubatsirwe. Kana wanzwa kuti hauchakwanise kuenderera mberi netsvakiridzo iyi unobvumidzwa kubuda mutsvakiridzo chero nguva.

### **Zvichawanikwa mutsvakiridzo**

Unogona kusawana rubatsiro rwakanangana newe mutsvakiridzo iyi. Asi kuvemo mutsvakiridzo kwako kuchatibatsira kuisa zvichemo kuvakuru zvekuti vana varikupinda mumatare edzimhosva evadiki vawane rubatsiro rwakafanira.

### **Zvakavanzika**

Zvese zvauchataura mutsvakiridzo ino zvichange zvakavanzika. Hatisi kuzozviudza vamwe vanhu. Zvichangoburitswa kana mutemo uchibvuma kuti zvibude (1) Kana watiudza kuti kuti urikufunga kuzvikuvadza kana kukuvadza umwe munhu, (2) kana urikushungurudzwa uye (3) kana uchiwanikwa mukushungurudzwa kweumwe mwana. Kana zvakadaro zvikaitika tichamhan'ara kune vakakodzera.

Tichachengetedza zita rako nekusarinyora pabepa remibvunzo kana munezvimwe zvinyorwa maererano nezvichabuda mutsvakiridzo uye zvese izvi hazvisikuzoratidza kuti waive mutsvakiridzo. Zvakavanzika zvichawanika chete pagwaro rewirirano iro richange richichengeterwa mumaCup board akakiyiwa. Magwaro ewirirano aya achazopiswa mushure memekore mashanu tsvakiridzo iyi yapera. Tichashandisa zvawataura kunyora mapepa mumapema efundo. Zita rako haribude mumapepa iwaya.

### **Sarudzo yekuvamustvakiridzo nekubuda**

Kuva mutsvakiridzo kwako hakumanikidzwe. Unogona kuti haukwanise kuve mutsvakiridzo iyi zvirikwauri. Kana wasarudza kuve mutsvakiridzo unogona zvekare kubudamo paunenge wadira. Hapana zvakashata zvinoitika kana wasarudza kusava mutsvakiridzo kana kubudamo chero nguva. Unogonazve kusapindura mimwe mibvunzo yaunenge usina kusununguka kupindura. Kana wasarudza kusave mutsvakiridzo kana kubuda chero nguva hazvikanganise mutongo uchapihwa kudare redzimhosva sezvo Probation Officer atonyora kare zvaanoona zvakakodzera pamapepa ake.

### **Arikubhadhara tsvakiridzo iyi**

Tsvakiridzo iyi irikubhadharwa ne African Mental Health Research Initiative (AMARI).

### **Mubhadharo nemuripo**

Hapana chamunobhadhara iwe nemubereki wako sezvo varikuita tsvakiridzo iyi vachakushanyirai kumba kwenyu. Zvakadaro iwe uchapiwa zvinwiwa kuripira nguva yako yaachange ari mutsvakiridzo. Hapana mari yekukwira bhazi yamuchazopiwa sezvo muchangosangana nevatsvakiridzi kamwe chete pavanouya kumba kwenyu.

### **Kodzero dzevapinda mutsvakiridzo**

Tsvakiridzo iyi yabvumirwa neve University of Cape Town Faculty of Health Science Human Research Ethics Committee (HREC). Yabvumirwa zvekare neve Medical Research Council of Zimbabwe uye ichaitwa nenzira yakanaka yekuchengetedza kodzero dzevari mutsvakiridzo zvinokosheswa pasi rese. Kana uine mubvunzo maererano nekodzero dzako mutsvakiridzo wakasununguka kufonera veMedical Research Council of Zimbabwe, panamba dzinoti +263 (4) 791792.

### **Wekutaura naye kana muine mibvunzo**

Kana uine mibvunzo maererano nekodzero dzako kana kunyunyuta maererano netsvakiridzo iyi munokwanisa kuphonera vanotevera: 1.Proffessor. Katherine Sorsdahl at +27 21 650 4798, [Katherine.sorsdahl@uct.ac.za](mailto:Katherine.sorsdahl@uct.ac.za) 2.Marshall T Marufu +263 773 387 917,

[marshymarufu@gmail.com](mailto:marshymarufu@gmail.com), 3. Dr Walter Mangezi +263 774 342 615,  
[wmangezi@yahoo.co.uk](mailto:wmangezi@yahoo.co.uk)

### **Kubvumidza**

Ndaverenga gwaro iri retsvakiridzo kana kuti ndariverengerwa. Ndanzwisisa njodzi nematambudziko uye zvakakoshera tsvakiridzo iyi. Ndinoziva kuti ndirikupinda mutsvakiridzo iyi nekuda kwangu. Ndasarudza kuve mutsvakiridzo iyi uye ndinokwanisa kusarudza kubuda mutsvakiridzo asi zvandakakodzera kuwana zvisingakanganisike. Ndichapiwa rimwe gwaro rewirirano iri.

### **Kuratidza kubvuma**

Ndapota titaurire kana uine mibvunzo musati matarisa gwaro rewirirano iri. Tarisai zvakare zvakanyorwa pagwaro iri kuratidza kuti murikuwirirana nezvinodiwa (musanyore kana musingawirirane nazvo):

Ndobvumirana nazvo	
	Ndobvuma kupinda mutsvakiridzo iyi yatsanangurwa zvizere kwandiri.
	Ndanzwisisa zvekare kuti kuvemo mutsvakiridzo kwangu kuda kwangu uye hapana mutongo wandinopihwa kana ndasarudza kusave mutsvakiridzo.

**Kusaina gwaro iri kunoratidza kuti wariverenga (kana kuti wariverengerwa), nekuti mibvunzo yako yapindurwa zvakugutsa uye wabvuma kupinda mutsvakiridzo.**

\_\_\_\_\_ (Zita rizere remwana). Uchapiwa rimwe gwaro rakasainwa.

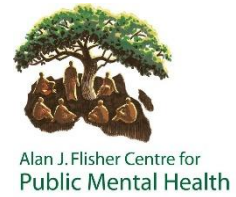
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**Mwana (Sainecha neZita) Zuva**

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**Mutsvakiridzi (Sainecha neZita) Zuva**

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**Mufakazi (Sainecha neZita) Zuva**

\*Mufakazi anodiwa kana arikupinda mutsvakiridzo kana gweta rake risingakwanise kuverenga (asingaone kana asingagone kuverenga) uye kana zvanzi zvakakodzera. Mufakazi uyu achange aripo pese pachakururwa neapinda mutsvakiridzo nepakubvumirana. Kusaina gwaro iri nemufakazi kunoratidza kuti arikupinda mutsvakiridzo apiwa ruzivo rwakakwana uye apinda nekuda kwake.

## Appendix B II: Assent Form (isiNdebele Version)



### Assent form for adolescents

## Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.

**Principal Investigator:** Mr Marshall T Marufu

**Supervisors:** Professor Katherine Sorsdahl, Ms Donnela Bessada, Dr. Petal Petersen Williams, and Dr Walter Mangezi

**Inombolo yencingo:** +263 773 387917

**Version 1.1**

### Ukuqalisa

Sicela imvumo yokuthi wena apatheke kuchwayisiso olulesihloko esithi ***“Prevalence and factors associated with depression and anxiety among adolescents’ offenders entering the juvenile justice system”***. Loluchwayisiso liyenziwa nguMarshall T Marufu umfundi kubanga eliphezulu iMphil in Public Mental Health e Alan J Flisher Centre for Public Mental Health eUniversity yeCape Town. Loluchwayisiso luzayenziwa koBulawayo (Tredgold, Fort Street lase Percy Ibbotson) lase Matabeleland North Province (Tsholotsho, Lupane leUnguza) Ngizabe ngilwenza ngingaphansi kubaqeqeshi bami uProfessor Katherine Sorsdahl, Ms Donnela Bessada, Dr Petal Petersen Williams, lo Dr Walter Mangezi.

Ungakavumi ukungena uphatheke, kuqakathekile ukuthi uzwisise ukuthi lumayelana lani. Leli phepha ngelokukuncedisa ukuthi wenze isinqumo sokuthi uphatheke kuloluchwayisiso. Nxa ulombuzo khululeka ubuze umkhokheli waloluchwayisiso. Ungavumi nxa ungazwisisanga ngokweneleyo ngokuzakwenzeka.

### Injongo

Injongo yaloluchwayisiso yikuzama ukubakwazi inani labantu abalomkhuhlane wengqondo (Ukudangala komoya, lokungahlaliseki) kwabasakhulayo abasanda kuthomba abathintana lomthetho ngoba bonile koBulawayo lase Matabeleland North Province. Loluchwayisiso luzaqgubeka lukhangela izinto ezixhumana lokudangala komphefumulo lokungahlaliseki komoya kwabasakhulayo. Uxhwayisiso oluke lwenziwa eSudan leNigeria lutshengise ukuthi kulamanani amanengi emkhuhlane wengqondo kwabasakhulayo abathintana lomthetho ngoba bewonile. Kubuye kwavela ukuthi imkhuhlane yegqondo ingabangela impilo yobugebenga sebekhulile, kodwa ke akula chwayisiso olutshengisa inani lokudangala

komphefumulo lokungahlaliseki komoya lezimpawu eziphatelana lemkhuhlane yengqondo kwabasakhulayo abeZimbabwe abathintana lomthetho ngoba bonile. Wena uyaphatheka kuloluhlelo ngoba eleminyaka elitshumi kusiya kutshumi lasikhombisa eyokuzalwa njalo uthintana lomthetho ngoba uwonile.

### **Abaphathekayo**

Loluchwayisiso lufuna kakhulu abantwana abangamankazana labangabafana abaleminyaka elitshumi kusiya kutshumi lasikhombisa, abathintana lomthetho ngoba bewonile. Nxa wena ungaphansi kweminyaka elitshumi eyokuzalwa kumbe ephezu kweminyaka elitshumi lasitshiya galo mbili, njalo engaphilanga emzimbeni kumbe engqondweni, ngiyaxolisa ngeke uphatheke kulolu chwayisiso.

### **Isikhathi**

Nxa uvuma ukuthi wena uphatheke kuloluchwayisiso, uzabuzwa imbuzo ehleliweyo ezathatha isikhathi esiphosa sibe lihola kumbe ihola elilemizuzu engamatshumi amabili phezulu. Uzabuzwa imbuzo mayelana ngokudangala komphefumulo, lokungahlaliseki komoya, lempawu eziphatelana lalomkhuhlane wengqondo, ezinjengokuxhaswa yimuli, ukusebenzisa izidaka mizwa lokuhlukunyezwa ngumthetho nxa ewonile. Uzaphinda abuzwe imbuzo ephathelene lezenzo ezilokwenza ngezamacansini ezidonsela ingozi lokuzithemba.

Imbuzo leyi izabuzwa ngumuntu okuqeqetsheleyo ukubuza imbuzo ehleliweyo. Impendulo uzazipha izasetshenziswa ukucabangela inani labantwana abalemikhuhlane yengqondo, sikhangele lezimpawu ezihambelana lolowu mkhuhlane kwabasakhulayo.

### **Izingozi lokungahlaliseki**

Asikhangelelanga ngozi kuwe nxa ephatheka kuloluchwayisiso. Ausoze ubanjwe ngamandla ukuphendula imbuzo. Nxa kungenzeka phakathi kwembuzo yochwayisiso sibone ukuthi sizadinga ukuncediswa, amanyathela azathathwa ukuze loloncedo lutholakale. Nxa wena ungazizwa ehlukumezekile ngemibuzo esiyibuzayo, sizakhutholela uncedo. Nxa umtwana engazizwa engasafuni kuphatheka kuchwayisiso lolu ukhululekile ukuphuma.

### **Inzunzo yokuphatheka kuloluchwayisiso**

Akulazunzo emasinyane esiyikhangeleleyo khuwe, kodwa kuzasincediswa ukuthi sincede abanye abantwana ngamacebo azahlomisa abakhangele ngabantwana abathintana lomthetho ngoba bewonile ukuthi uhlelo lolu luhambe kuhle.

### **Imfihlakalo**

Izimpendulo esizithola khuwe zizabe ziyimfihlo. Azisoze ziphiwe omunye umuntu. Zizakhitshwa kuphela nxa kudingeka ngabomthetho(1) Nxa wena engasitshela ukuthi usengozini yokuzilimaza kumbe eyokulimaza omunye umuntu.(2) Nxa uhlukunyezwa kumbe unganakekelwa (3)Nxa kunguwee ohlukumeza omunye umtwana.

Ukuze sikhuvikile ibizo lakho alisoze libhalwe phansi, njalo akusoze kube lendlela yokuxhumanisa ukuthi nguwe owapha lezo mpendulo. Imbali yakho izaba kuform lesivumelwano elizabekwa endaweni ekhatshana efihlekileyo. Lawa maphepha azatshiswa ngemva kweminyaka emihlanu esetshinzisiwe. Okhuyabe kuphumile kuloluchwayisiso kuzabhalwa emaphepeni ezinfundo kodwa ibizo lakho kalisoze liphume.

### **Ukuphatheka lokuphuma kuchwayisiso**

Ukuphatheka kuya ngokuthanda kwakho. Usungakhetha ukuthi uphatheke kumbe ukhethe ukungaphatheki. Nxa ungakhetha ukuphatheka, ukhululekile ukumisa imbuzo ngesikhathi asifungayo. Akusoze kube lesijeziso. Wena usungayala ukuphedula imbuzo uyizwa imhlukumeza. Nxa ungakhetha ukumisa imbuzo phakathi kochwayisiso akula mthelela kusigwebo ozauphiwa nguMantshi ngoba amapaper kudala ebhaliwe nguProbation officer.

### **Ngubani oncedisa ngemali yaloluchwayisiso**

Loluchwayisiso luncediswa ngemali ngabe African Mental Health Research Initiative (AMARI).

### **Ukubiselwa imali**

Akusoze kubelendleko kuwe ukuba yingxenye yaloluchwayisiso ngoba labazabuza imbuzo bazalilandela ngekhaya. Kodwa ke wena uzathola okokudla okuncane ngesikhathi ulathi. Ausoze uphiwe imali yokugada njengoba lizahlangana labazabuza imbuzo leyi bazalivhakatshela kanye endlini.

### **Amalungelo abaphathekayo**

Loluchwayisiso luvunyelwe yi University of Cape Town Faculty of Health Science Human Research Ethics Committee (HREC). Lulochwayisiso luvunyelwe futhi ngabe hofisi yeMedical Research Council of Zimbabwe. Njalo luzahlelwa ngokulaywa yi International Guidelines for Good Clinical Practice. Nxa ulembuzo ngamalungelo akho khululeka ufonele abe Medical Research Council of Zimbabwe (MRCZ), inombolo zencingo +263 (4) 791792.

### **Ubuza bani nxa ulembuzo.**

Nxa ulembuzo ngaloluchwayisiso xhumana labantu abalandelayo 1) Proffesor Katherine Sorsdahl ku +27216504798, [Katherine.sorsdahl@uct.ac.za](mailto:Katherine.sorsdahl@uct.ac.za) 2) Marshal T Marufu +263773387917, [marshymarufu@gmail.com](mailto:marshymarufu@gmail.com) 3) Dr Walter Mangezi +263774342615 [wmangezi@yahoo.com](mailto:wmangezi@yahoo.com)

### **Imvumo**

Ngibalile leliphapha, kumbe ngilibalelwe. Ngyazwisisa ubungozi lenzuzo yokuba yingxenye yaloluchwayisiso, ngyakwazi ukuthi ukuphatheka kusemandleni ami. Ngingakhetha ukuphatheka, ngyenelisa ukuphuma nxa ngingasafuni ukuqhubeka, kungelasijeziso. Ngizathola icopy yaleliphapha.

## Ukutshengisa isivumelwano

Sicela usazise nxa ulembuzo ungakabhali leyi iform, bhala kumutsho munye ngamunye kutshengise ukuthi uyakwazi okukhangelelwe kuwe. (utshiye kungabhalwanga nxa ungavumi).

<b>Ngiyavuma</b>	
	Ngiyavuma ukuthi ngiphatheke kuloluchwayisiso, engiluchasiselweyo ngokujulileyo.
	Ngiyewwisisa ukuthi ukuphatheka kwami kuloluchwayiso kuya ngokuthanda kwami, njalo akulasijeziso nxa ngingakhetha ukungaphatheki

**Ukubhala leli phepha kutshengisa ukuthi ubalile, kumbe ubalelwe, imbuzo yakho yonke yaphendulwa ngokukusuthisayo wasuvuma ukuthi uphatheke**

\_\_\_\_\_ (ibizo lakho ngokugcwala) ukuthi  
aphatheke kuloluchwayisiso. (Uzaphiwa elinye laleliphepha)

-----  
**Umntwana**

**(Ibizo le Signature)**

**Date**

-----  
**Umuntu othatha leli phepha ( Ibizo leSignature)**

**Date**

-----  
**Umfakazi (Ibizo leSignature )**

**Date**

**\*Kuyadingeka umfakazi nxa ophathekayo kumbe omelayo engenelisi ukubala (kaboni kumbe kafundanga). Umfakazi uyaphatheka kuzo zonke ingxoxo. Umfakazi uqinisekisa ukuthi konke okuxoxwayo kuchasisiwe kwazwisiswa ngophathekayo**

## Appendix C - Socio-Demographic Questionnaire (English Version)

### Prevalence and factors associated with depression and anxiety among adolescent offenders entering the juvenile justice system

Thank you very much for agreeing to participate in this study. You are now going to be asked several questions. Please try your best to answer all questions. There is no correct or wrong answer. If you do not understand a question, feel free to ask me to repeat the question.

Answer the following questions; please provide one answer for each question.

Sex of Respondent	Male 1 Female 2	
Date of Birth		
Nature of Crime	Type of crime committed  Are you a first-time offender? Yes 1 No 2 If your answer is no, how many times have you been arrested?..... What was the nature of your previous crimes?..... ..... What type of sentence did you receive?..... ..... Did the crime committed involve a gang? Yes 1 No 2	
Family Composition	Are both of your parents alive? Yes 1 No 2 Do you stay with both parents? Yes 1 No 2 If your answer is NO, which parent do you stay with currently? Mother 1 Father 2 Do you have siblings? Brother 1 Sister 2 Do you stay together with your family? Yes 1 No 2 Who are you attached to in your family 1 Mother 2 Father	
Socio-Economic Status	Who is the breadwinner in your family? 1 Father 2 Mother 3 Guardian 4 Sibling 5 Other What is the breadwinner's employment status? Employed 1 Unemployed 2 Self-employed 3 Part time employment 4 Fulltime employment 5	
Orphan hood Status	Are both of your parents alive? Yes they are both alive (not an orphan) 1 Lost mother (single Orphan) 2 Lost father (single orphan) 3 Lost both parents (double orphan) 4	
Education status	Do you go to school Yes 1 No 2 What is your level of education?	

	I did not attend school 1 I completed primary school 2 I completed secondary school 3 I attended school up to tertiary level 4	
Employment Status	What is your current employment status? Employed 1 Unemployed 2 Self employed 3 Part time employment 4 Fulltime employment 5	
History of mental illness	Is there anyone who has suffered from any mental illness within your family Yes 1 No 2 Have you ever suffered from any mental illness Yes 1 No 2 If you answer is yes, did you receive treatment Yes 1 No 2 If yes, what type of treatment 1 Medical 2 Traditional 3 Religious	

**Appendix C I : Socio-Demographic Questionnaire (Shona Version)**

**Prevalence and factors associated with depression and anxiety among adolescent offenders entering the juvenile justice system**

Tinotenda chaizvo nekubvuma kuva mutsvakiridzo iyi. Uchabvunzwa mibvunzo yakati wandei. Ndapota zama nepaunogona kupindura mibvunzo yese iyi. Hapana mhinduro inonzi iyi haisiyo kana kuti ndiyo. Kana usina kunzwisisa mubvunzo sununguka kundiudza ndidzokorore.

Pindura mibvunzo inotevera; ndapota ipa mhinduro pamubvunzo umwe neumwe.

Sex of Respondent	1 Mukomana 2 Musikana	
Zuva rekuzvarwa		
Mhando yeMhosva	Iyi imhosva yako yekutanga here? Hongu 1 Kwete 2  Kana mhinduro iri kwete, ndekechingani uchisungwa? ..... Wakambosungirwa mhosva dzemhando ipi? ..... ..... Wakapihwa mutongo wakadii pawakambo para mhosva?..... ..... Mhosva dzacho maipara muri zvikwata here? Hongu 1 Kwete 2	
Mamiriro emumhuri	Vabereki vako vose vapenyu here Hongu 1 Kwete 2  Unogara nevabereki vako vose here? Hongu 1 Kwete 2  Kana mhinduro iri kwete, unogara Nemubereki upi parizvino? Amai 1 Baba 2  Mumhuri menyu mune vamwe vana here? Hongu 1 Kwete 2  Munogara mose semhuri here Hongu 1 Kwete 2  Aripedyo newe mumhuri menyu ndiani Baba 1 Amai 2	
Socio-Economic Status	Ndiani anoshanda achichengeta mhuri? 1 Baba 2 Amai 3 Hama 4 Hanzvadzi/mukoma 5 Umwewo  Anochengeta mhuri anoshanda zvemhando ipi? Anoshanda 1 Haashande 2 Anozvishandira ega 3 Anoshanda dzimwe nguva 4 Anoshanda mazuva ose 5	

Hunherera	Vabereki vako vese vapenyu here? Ehe vapenyu vese (haasi nherera) 1 Ndakafirwa naamai (nherere isina amai) 2 Ndakafirwa nababa (nherera isina baba) 3 Ndakafirwa nevabereki vose (vabereki vose hapana) 4	
Zvekudziidza	Wakadziidza here Hongu 1 Kwete 2  Waka dziidza kusvika padanho ripi? Handina kudziidza 1 Ndakapedza danho reprimary 2 Ndakapedza danho resecondary 3 Ndakadziidza kusvika kuUniversity 4	
Kushanda	Parizvino unoshanda here ? Ndinoshanda 1 Handishande 2 Ndinozvishandira 3 Ndinoshanda dzimwe nguva 4 Ndoshanda mazuva ose 5	
Nhoroondo maererano nekurwara nepfungwa	Mumhuri menyu pane here akamborwara nechirwere chepfungwa? Hongu 1 Kwete 2  Wakamborwara nechirwere chepfungwa Here? Hongu 1 Kwete 2  Kana uchiti hongu, wakarapwa here Hongu 1 Kwete 2  Kana wati hongu wakarapwa zvemhando ipi? 1 Kuchipatara 2 Kun'anga 3 Kuchechi	



	Uyasebenza izikhathi zonke	5	
Ubuntandane	Abazali bonke bayaphila yini? Yebo bayaphila bonke (kaso ntandane) Ngabhujelwa ngu mama (ntandane engela mama) Ngafelwa ngubaba (ntandane engela baba) Ngafelwa ngabazali boba bili (abazali bonke abakho)	1 2 3 4	
Isilinganiso sezifundo	Uyafunda Wafunda wacina kuliphi ibanga? Angifundanga Ngaqeda ibanga leprimary Ngaqeda ibanga lesecondary Ngafunda ngayafika eUniversity	Yebo 1 Hatshi 2  1 2 3 4	
Employment Status	Uyasebenza yini? Ngiyasebenza Angisebenzi Ngiyazisebenza Ngiyasebenza ngezinye izikhathi Ngiyasebenza izikhathi zonke	1 2 3 4 5	
Imbali yeumkhuhlane wengqondo	emulini ukhona yini osewake wagula umkhuhlane wengqondo?  Usuke wagula umkhuhlane wengqondo?  Nxa wake wagula, welatshwa yini?  Nxa impendulo kungu Yebo, welatshwa njani ? 1 Esibhedlela 2 Enyangeni 3 Esontweni	Yebo 1 Hatshi 2  Yebo 1 Hatshi 2  Yebo 1 Hatshi 2	

**Appendix D : Centre for Epidemiological Studies Short Depression Scale (English version)**

Below is a list of some of the ways you may have felt or behaved.

Please indicate how often you have felt this way during the past week by checking the appropriate box for each question.

		<b>Rarely or none of the time</b> (less than 1 day)	<b>Some or a little of the time</b> (1-2 days)	<b>Occasionally or a moderate amount of time</b> (3-4 days)	<b>All of the time</b> (5-7 days)
1	I was bothered by things that usually don't bother me.				
2	I had trouble keeping my mind on what I was doing				
3	I felt depressed.				
4	I felt that everything I did was an effort				
5	I felt hopeful about the future.				
6	I felt fearful.				
7	My sleep was restless.				
8	I was happy.				
9	I felt lonely				
10	I could not "get going."				

**Appendix D I: Centre for Epidemiological Studies Short Depression Scale (Shona version)**

Pazasi pakanyorwa zwawakambonzwa kana zwawakamboita.

Ndapota ndiudze kuti wakazvinzwa kangani musvondo rapfuura uchi cherechedza bokisi chairo pamubvunzo umwe neumwe.

Zvawainzwa	(less than 1 day) Kashoma/hazvina kuitika	(1-2 days) Dzimwe nguva/Nguva shoma	(3-4 days) Dzimwe nguva/zvis homa	(5-7 days) Nguva dzose
1	Ndaishungurudzwa nezvinhu zvaisambondishungurudza.			
2	Ndainetseka nekuisa pfungwa pane zvandinenge ndichiita			
3	NdaiFungisisa			
4	Ndainzwa kunge zvose zvandirikuita kuzviita neshungu			
5	Ndaive netariro mune ramangwana			
6	Ndainzwa kutya			
7	Ndaishaya hope			
8	Ndainzwa kufara			
9	Ndainzwa kusuwa			
10	Hapana chaindi fambira			

**Appendix D II : Centre for Epidemiological Studies Short Depression Scale (isiNdebele version)**

Ngaphansi ngeminye imizwa ongabe wake wayizwa kumbe into owake wazenza

Ngcela ungitshela ukuthi kwenzakala kangaki kuviki leli eledluleyo, ngokubhala ebhokisini eliqondileyo ngombuzo munye ngamunye.

		<b>Kalutshw ana/ akuyenza kalanga</b>	<b>Ngezinye izikhathi/ izikhathi ezilutshw ana</b>	<b>Kwezinye izikhathi/ kalutshwa na</b>	<b>Zikhath i zonke</b>
1	Ngangihlukuluzwa yizinto ebezingangihlukuluzi emuva				
2	Bengingenelisi ukuthi umcabango wami ube sentweni engiyenzayo				
3	Ngangisiba lokuhlukumezeka emphefumulweni				
4	Ngangisizwa angani konke engikwenzayo ngibamba ngamandla				
5	Ngangilethemba ngelanga elilandelayo				
6	Ngangizizwa ngisesaba				
7	Ngangingalali				
8	Ngangizizwa ngijabulile				
9	Ngangizizwa ngilesizungu				
10	Kwakungela nto engihambela ngendlela				

**Appendix E : General Anxiety Disorder (GAD-7) (English version)**

Over the LAST 2 WEEKS, how often have you been <u>bothered</u> by any of the following problems?		Not at all	Several days	More than half the days	Nearly every day
1	Feeling nervous, anxious or on edge.	0	1	2	3
2	Not being able to stop or control worrying.	0	1	2	3
3	Worrying too much about different things.	0	1	2	3
4	Trouble relaxing.	0	1	2	3
5	Being so restless that it is hard to sit still.	0	1	2	3
6	Becoming easily annoyed or irritable.	0	1	2	3
7	Feeling afraid as if something awful might happen	0	1	2	3
		A12 – GAD7 total score			

**Appendix E I: General Anxiety Disorders (GAD -7) (Shona version)**

	Pamasvondo maviri apfuura, kangani uchinetskana nekuda kwematambudziko anotevera?	Hazvina kuitika	Mazuva mazhinji	Kudarika <i>half</i> yemazuva	Ndinga ngoti mazuva ose
1	Kungonzwa kutya	0	1	2	3
2	Kutadza kumisa kana kudzora kushushukana	0	1	2	3
3	Kushushikana zvikuru nekuda kwezvinhu zvakawanda	0	1	2	3
4	Kutadza kugadzikana	0	1	2	3
5	Kusagadzikana kusvika pakutadza gara mushe	0	1	2	3
6	Kukurumidza kutsamwiswa kana kubhoikana	0	1	2	3
7	Kutya kuti pane zvakashata zvinogona kuitika	0	1	2	3
		A12 – GAD7 total score			

**Appendix E II: General Anxiety Disorders (GAD-7) (isiNdebele version)**

	Emavikini amabili adlulileyo, kube kangaki ukhathazwa ngokunye kwezinto ezilandelayo	Akuzange kwenzakale	Amalanga amanengi	Kwedlula ihalf yamalanga	<i>Phose amalanga wonke</i>
1	Ukuzwa ngisesaba	0	1	2	3
2	Ukwehluleka ukuma ukubalisa	0	1	2	3
3	Ukubalisa ngezinto ezingengi	0	1	2	3
4	Ukungahlaliseki	0	1	2	3
5	Ukubalisa okuze kubenzima lokuhlala ngizinze	0	1	2	3
6	Ukuphangisa ukucaphuka	0	1	2	3
7	Ukuzwa ngilokwesaba angani kulento embi ezakwenzakala	0	1	2	3
		A12 – GAD7 total score			

## Appendix F : Alcohol Use Disorder Identification Test (English version)

The Alcohol Use Disorders Identification Test: Interview Version	
<p>Read questions as written. Record answers carefully. Begin the AUDIT by saying “Now I am going to ask you some questions about your use of alcoholic beverages during this past year.” Explain what is meant by “alcoholic beverages” by using local examples of beer, wine, vodka, etc. Code answers in terms of “standard drinks”. Place the correct answer number in the box at the right.</p>	
<p>1. How often do you have a drink containing alcohol?</p> <p>(0) Never [Skip to Qs 9-10]            (1) Monthly or less            (2) 2 to 4 times a month            (3) 2 to 3 times a week            (4) 4 or more times a week</p>	<p>6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p>
<p>2. How many drinks containing alcohol do you have on a typical day when you are drinking?</p> <p>(0) 1 or 2            (1) 3 or 4            (2) 5 or 6            (3) 7, 8, or 9            (4) 10 or more</p>	<p>7. How often during the last year have you had a feeling of guilt or remorse after drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p>
<p>3. How often do you have six or more drinks on one occasion?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p>Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0</p>	<p>8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p>
<p>4. How often during the last year have you found that you were not able to stop drinking once you had started?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p>	<p>9. Have you or someone else been injured as a result of your drinking?</p> <p>(0) No            (2) Yes, but not in the last year            (4) Yes, during the last year</p>
<p>5. How often during the last year have you failed to do what was normally expected</p>	<p>10. Has a relative or friend or a doctor or another health worker been concerned about</p>

<p>from you because of drinking?</p> <p>(0) Never  (1) Less than monthly  (2) Monthly  (3) Weekly  (4) Daily or almost daily</p>	<p>your drinking or suggested you cut down?</p> <p>(0) No  (2) Yes, but not in the last year  (4) Yes, during the last year</p>
<p style="text-align: center;">Record total of specific items here</p> <p><i>If total is greater than recommended cut-off, consult User's Manual.</i></p>	

**Appendix F I : Alcohol Use Disorder Identification Test (Shona version)**

The Alcohol Use Disorders Identification Test: Interview Version	
<p>Verenga mibvunzo semanyorerwo ayakaitwa. Nyora mhinduro nemazvo. Tanga AUDIT uchiti “Parizvino ndichabvunza mibvunzo maererano nekunwa kwenyu zvinwiwa zvinodhaka mugore rapfuura.” Tsanangura zvinoreva “zvinwiwa zvinodhaka” uchishandisa mienzaniso yedoro newaini. Isa mhinduro maererano “mhando yezvinwiwa”. Isa namba yemhinduro chaiyo mubhokisi.</p>	
<p>1. Kangani uchinwa chinwiwa chine zvinodhaka?</p> <p>(0) Handisati ndambonwa (jamba 9-10)                      (1) Mwedzi kana zvichidzika                      (2) Kaviri /Kana pamwedzi                      (3) Kaviri kaka katatu pasvondo                      (4) Kana zvichikwira pasvondo</p>	<p>6. Kangani mumwedzi wapfuura kawainzwa kuda kutanga wanwa makuseni kuti ukwanise kushanda mushure mekunge wanwa zvikuru muzuva rapfuura?</p> <p>(0) Handina kumbozvanzwa                      (1)Kashoma pamwedzi                      (2) Mwedzi wega wega                      (3) Svondo rega rega                      (4) Mazuva ose</p>
<p>2. Unonwa zvinwiwa zvingani zvinodhaka pazuva kana uchinwa?</p> <p>(0) Chimwe kana zviviri                      (1) Zvitatu kana zvina                      (2) Zvishanu kana zvitatanhatu                      (3)Zvinomwe, zvisere kana zvipfumbabwe                      (4) Gumi zvichikwira</p>	<p>7. Kangani pagore rakapera pawakanzwa kunge unemhosva kana pawakanzwa kuzvisvora mushure mekunge wanwa doro?</p> <p>(0) Hazvina kumboitika                      (1) Kashoma pamwedzi                      (2) Mwedzi wese                      (3) Svondo rese                      (4) zuva rega rega</p>
<p>3. Kangani uchinwa zvinwiwa zvitatanhatu zvichikwira panguva imwechete</p> <p>(0) Hazvina kumboitika                      (1) Kashoma pamwedzi                      (2) Mwedzi wese                      (3) Svondo rese                      (4) Ruva rega rega</p> <p>kumubvunzo wechipfumbabwe ne gumi kana zvibodzwa zvemubvunzo wechipiri newechitatu zvichikupa zero</p>	<p>8. Kangani mugore rapfuura kamaitadza kurangarira zvinenge zvaitika muhusiku hwapfuura nekuti manga muchinwa doro?</p> <p>(0) Hazvina kumboitika                      (1) Kashoma pamwedzi                      (2) Mwedzi wese                      (3) Svondo rese                      (4) Ruva rega rega</p>
<p>4. Kangani mugore rapfuura pamakaona kuti hamusikugona kumira kunwa kana matanga?</p> <p>(0) Hazvina kumboitika                      (1) Kashoma pamwedzi                      (2) Mwedzi wese                      (3) Svondo rese                      (4) Ruva rega rega</p>	<p>9. Pane pamakambokuvara here kana pakambokuvara umwe nekuda kwekunwa kwenyu?</p> <p>(0) Hapana                      (2) Ehe, asi kwete mugore rakapera                      (4) Ehe, mugore rakapera</p>

<p>5. Kangani mugore rakapera kamakatadza kuita zvamaitarisirwa kuita nekuda kwekunwa?</p> <p>(0) Hazvina kumboitika  (1) Kashoma pamwedzi  (2) Mwedzi wese  (3) Svondo rese  (4) Ruva rega rega</p>	<p>10. Pane hama, shamwari, chiremba kana umwe mushandi wezveutano akaratidza kunetsekana nekunwa kwenyu kana kukuudzai kuti mudzore manwiro</p> <p>(0) Hapana  (2) Ehe, asi kwete mugore rakapera  (4) Ehe, mugore rakapera</p>
<p style="text-align: center;">Nyora zvinhu zvose pano</p> <p><i>If total is greater than recommended cut-off, consult User's Manual.  Kana zvibodzwa zvakawanda kudarika mwero unodiwa, tarisa gwaro remashandisirwo</i></p>	

**Appendix F II: Alcohol Use Disorder Identification Test (isiNdebele version)**

The Alcohol Use Disorders Identification Test: Interview Version	
<p>Bala imbuzo njengoba ibhaliwe. Ubhale impendulo ngobuciko. Qala i Audit ngokuthi “ okwakhathesi ngizacela ukukubuza imbuzo ngendlela owawunatha ngayo izidaka mizwa kumnyaka lowu odlulieyo.” Chasisa ukuthi okunathwayo okuyizidaka mizwa yikuphi usebenzisa imizekeliso enjengo tshwala, wine vodka lokunye. Bhala impendulo zakho usebenzisa “standard drinks” faka impendulo eqondileyo ebhokisini elisesandleni sokudla</p>	
<p>1. Unatha kangaki okunathwayo okudakayo?</p> <p>(0) Angikaze nginathe ( yeqa u9-10)                      (1) Inyanga kusiyaphansi                      (2) Kabili kusiya kane ngenyanga                      (3) Kabili kusiya kathathu ngeviki.                      (4) Kane kusiyaphezulu ngeviki</p>	<p>6. Kangaki kumnyaka odlulileyo uzizwa ufuna ukuqala ngokunatha ukuze ukwanise ukusebenza?</p> <p>(0) Angikaze ngikuzwe                      (1) Kalutshwana ngenyanga                      (2) Nyanga zonke                      (3) viki zonke                      (4) Malanga onke</p>
<p>2. Unatha okudakayo kangaki ngelanga nxa ucabange ukunatha?</p> <p>(0) Kanye kumbe kabili                      (1) Kathathu kumbe kane                      (2) Kahlanu kumbe kasthupha                      (3) Kaskhombisa, kasitshiyagalombili, kasitshiya galo lunye vinomwe,                      (4) Tshumi kusiya phezulu</p>	<p>7. Kangaki ngomnyaka ophelileyo uzizwa ulokuzisola ngemva kokunatha?</p> <p>(0) Akukaze kwenzeke                      (1) kalutshwana ngenyanga                      (2) Nyanga zonke                      (3) Maviki wonke                      (4) Malanga wonke</p>
<p>3. Kangaki unatha amambodlela otshwala ayisithupha kusiya phenzulu sikhathi sinye</p> <p>(0) Akukaze kwenzeke                      (1) Kalutshwana ngenyanga                      (2) Nyanga zonke                      (3) Maviki wonke                      (4) Malanga wonke</p> <p>Yeqa uyekumbuzo wetshumi lasitshiya galo lunye nxa imiklomelo yombuzo wesibili lowesithathu kungu =0</p>	<p>8. Kangaki emnyakeni odlulileyo ungenelisi ukukhumbula okwenzakeleyo ntambama obunatha ngayo?</p> <p>(0) Angikaze                      (1) Kalutshwana ngenyanga                      (2) Inyanga yonke                      (3) Iviki yonke                      (4) Amalanga wonke</p>
<p>4. Kangaki ngomnyaka ophelileyo uzithola usehluleka ukuma ukunatha ungaqalisa.</p> <p>(0) Akukaze kwenzakale                      (1) Kalutshwana ngenyanga                      (2) Mwedzi wese                      (3) Svondo rese                      (4) Ruva rega rega</p>	<p>9. Suke walimala kumbe kwabakhona olimalayo ngenxa yokudakwa kwakho?</p> <p>(0) Hatshi                      (2) Yebo kodwa hatshi ngomnyaka ophelileyo                      (4) Yebo ngomnyaka ophelileyo</p>

<p>5. Kangaki ngomnyaka ophelileyo usehluleka ukwenza okukhangelelwe ukuthi ukwenze ngenxa yokudakwa?</p> <p>(0) Akukaze kwenzakale  (1) Kalutshwana ngenyanga  (2) Nyanga zonke  (3) Viki zonke  (4) Malanga wonke</p>	<p>10. Kulesihlobo, umngane kumbe udokotela oseke watshengisa ukukhathazeka ngokunatha kwakho? Kumbe wakucebisa ukuthi ume mbijana ukunatha?</p> <p>(0) Hatshi  (2) Yebo, kodwa hatshi emnyakeni ophelileyo,  (4) Yebo, emnyakeni ophelileyo</p>
<p>Bhala impumela lapha</p> <p><i>Nxa impumela inengi kulempumela ekhangelelweyo, sebenzisa ugwalo lomsebenzi</i></p>	

## Appendix G : Drug Use Disorders Identification Test (DUDIT)(English Version)

For each question select your answer and fill in the score given in the box at the end of the row

	Question	0	1	2	3	4	Score
1	How often do you use drugs other than alcohol?	Never	Once a month or less	2-4 times a month	2-3 times a week	4 times a week or more often	
2	Do you use more than one type of the drug on the same occasion	Never	Once a month or less	2-4 times a month	2-3 times a week	4 times a week or more often	
3	How many times do you take drugs on a typical day when you use drugs?	0	1-2	3-4	5-6	7 or more	
4	How often you are influenced heavily by drugs?	Never	Less often than once a month	Every month	Every week	Daily or almost every day	
5	Over the past year, have you felt that your longing for drugs was so strong that you could not resist it?	Never	Less often than once a month	Every month	Every week	Daily or almost every day	
6	Has it happened, over the past year that you have not been able to stop taking drugs once you have started?	Never	Less often than once a month	Every month	Every week	Daily or almost every day	
7	How often over the past year have you taken drugs and then neglected to do something you should have done?	Never	Less often than once a month	Every month	Every week	Daily or almost every day	
8	How often over the past year have you needed to take a	Never	Less often than once a month	Every month	Every week	Daily or almost every	

	drug the morning after heavy drug use the day before?					day	
9	How often over the past year have you had guilt conscience because you used drugs?	Never	Less often than once a month	Every month	Every week	Daily or almost every day	
1	Have you or anyone else hurt (mentally or physically) because you used drugs?	No		Yes, but not over the past year		Yes, over the past year	
1	Has a relative or a friend, a doctor or a nurse or anyone else, has worried about your drug use or said to you that you should stop using drugs?	No		Yes, but not over the past year		Yes, over the past year	
						<b>Total</b>	

**Appendix G I : Drug Use Disorders Identification Test (DUDIT)(Shona version)**

Pamubvunzo wega wega sarudza mhinduro wonyora zvibodzwa mubhokisi riri pekupedzisira

	Mubvunzo	0	1	2	3	4	Score
1	Kangani muchishandisa zvinodhaka zvisiri doro?	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Kaviri kana kana pamwedzi	Kaviri kana katatu pamwedzi	Kana zvichikwira pasvondo	
2	Munoshandisa zvinodhaka avinodarika chimwe here panguva imwe	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Kaviri kana kana pamwedzi	Kaviri kana katatu pamwedzi	Kana zvichikwira pasvondo	
3	Kangani muchishandisa zvinodhaka pazuva?	Hand ishan dise	Kamwe kana kaviri	Katatu kaka kana	Kashanu kana katanhatu	Kanomwe zvichikwira	
4	Kangani muchidhakwa zvikuru nezvinodhaka?	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Mwedzi wega wega	Svondo rega rega	Ruva rega rega	
5	Mugore rapfuura pane pamakambonzwa kudisisa zvinodhaka zvekuti makatadza kuzvidzora	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Mwedzi wega wega	Svondo rega rega	Ruva rega rega	
6	Zvakamboitika here mugore rapfuura zvekutadza kurega zvinodhaka kana mazvitanga	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Mwedzi wega wega	Svondo rega rega	Ruva rega rega	
7	Kangani mugore rapfuura pakatora zvinodhaka mukarega kuita zvamaifanirwa kuita?	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Mwedzi wega wega	Svondo rega rega	Ruva rega rega	

8	Kangani mugore rapfuura paida kuti mutore zvinodhaka makuseni mushure mekutora zvinodhaka zvakawanda muzuva rapfuura?	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Mwedzi wega wega	Svondo rega rega	Ruva rega rega	
9	Kangani mugore rapfuura pamakambonzwa kuzvishora nekuti mashandisa zvinodhaka?	Hazv isati zvam boiti ka	Kamwe kana kashoma pamwedzi	Mwedzi wega wega	Svondo rega rega	Ruva rega rega	
1	Makambokuvara here kana kuti pane akambokuvara (pfungwa kana muviri) nekuti mashandisa zvinodhaka	Kwete		Hongu, asi kwete mugore rapfuura		Hongu, mugore rapfuura	
1	Pane hama, shamwari, chiremba, mukoti kana umwewo munhu akashushikana nekushandisa kwenyu zvinodhaka akakuudzai kuti murege	Kwete		Hongu, asi kwete mugore rapfuura		Hongu, mugore rapfuura	
						Total	

**Appendix G II: Drug Use Disorders Identification Test (DUDIT)(isiNdebele version)**

Kumbuzo munye ngamunye khetha impendulo, ubhale ebhokisini elisekucineni esandleni sokudla.

	<b>Umbuzo</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Score</b>
1	Kangaki usebenzisa ezinye izidaka mizwa ezingasotshwala?	Angi kaze	Kanye ngenyanga kusiya phansi	Kabili kusiya kane ngenyanga	Kabili kusiya kathathu ngeviki	Kane kusiyaph ezulu ngeviki	
2	Uyasebenzisa umhlobo wezidaka mizwa odlule owodwa ngesikhathi sinye	Akukaze kwenzeke	Kanye ngenyanga kusiya phansi	Kabili kusiya kane ngenyanga	Kabili kusiya kathathu ngeviki	Kane kusiyaph ezulu ngeviki	
3	Kangaki usebenzisa izidaka mizwa ngelanga nxa ucabange ukuzisebenzisa	0 angis eben zisi	1-2 Kanye kumbe kabili	3-4 Kathathu kumbe kane	5-6 Kahlanu kumbe kashupha	7 or more Kaskho mbisa kusiya phezulu	
4	Kangaki udakwa kakhulu yizidaka mizwa	Akukaze kwenzakale	Kalutshwana ngenyanga	Nyanga zonke	Maviki wonke	Malanga wonke	
5	Emnyakeni ophelileyo uke wazizwa ufuna izidaka mizwa kakhulu okokuthi wehluleka ukuzibamba	Akukaze kwenzakale	Kalutshwana ngenyanga	Nyanga zonke	Maviki wonke	Malanga wonke	
6	Emyakeni odlulileyo sekuke kwenzakala yini ukuthi wehluleke ukuma ukusebenzisa izidaka mizwa ungaziqalisa?	Akukaze kwenzakale	Kanye kumbe kalutshwana ngenyanga	Nyanga zonke	Maviki wonke	Malanga wonke	
7	Emnyakeni	Akuk	Kanye	Nyanga	Maviki	Malnga	

	odlulileyo sekube kangaki usebenzisa izidaka mizwa Uze ukhohlwe ukwenza okumele ukwenze?	aze kwen zeke	kumbe kalutshwana ngenyanga	zonke	wonke	wonke	
8	Emnyaneki odlulileyo kube kangaki usebenzisa izidaka mizwa ekuseni uvuka ngemva kokuzisebenzisa kakhulu izolo kwakhona?	Akuk aze kwen zakal e	Kanye kumbe kalutshwana ngenyanga	Nyanga zonke	Maviki wonke	Malanga wonke	
9	Umnyaka ophelileyo kube kangaki uzizwa ulokuzisola ukuthi usebenzise izidaka mizwa?	Akuk aze kwen zeke	Kanye kumbe kalutshwana ngenyanga	Nyanga zonke	Maviki wonke	Malanga wonke	
1	Sekuke kwabakhona olimalayo emzimbeni kumbe emoyeni ngenxa yokusebenzisa kwakho izidaka mizwa	Hats hi		Yebo kodwa hatshi kumnyaka ophelileyo		Yebo, kumnyaka ophelileyo	
1	Kukekwabakhona umngane, udokotela, umongikazi kumbe omunye nje umuntu oseke watshengisa ukukhathazeka ngokusebenzisa kwakho izidaka mizwa, wakucebisa	Hats hi		Yebo kodwa hatshi kumnyaka ophelileyo		Yebo, kumnyaka ophelileyo	

	ukuthi ume?						
						<b>Total</b>	

**Appendix H : Fagerstrom Test for Nicotine Dependence (FND)(English version)**

Segment:            --

Visit Number:     --

Date of Assessment: (mm/dd/yyyy)            --/--/----

1. Do you currently smoke cigarettes            Yes                                No

If “yes,” read each question below. For each question, enter the answer choice which best describes your response.

2. How soon after you wake up do you smoke your first cigarette?

  After 5 minutes                                After 31 to 60 minutes

  After 6 to 30 minutes                            After 60 minutes

3. Do you find it difficult to refrain from smoking in places where it is forbidden (e.g., in church, at the library, in the cinema)?

  Yes    No

4. Which cigarette would you hate most to give up?

                  The first one in the morning            Any other

5. How many cigarettes do you smoke per day?

                  10 or less                                21 to 30  
                  11 to 20                                30 and above

6. Do you smoke more frequently during the first hours after waking than during the rest of the day?

  Yes    No

7. Do you smoke when you are so ill that you are in bed most of the day?

Your score was: (your level of dependence on nicotine is):                                --



**Appendix H II : Fagerstrom Test for Nicotine Dependence (FND)(isiNdebele version)**

Segment:            --

Visit Number:     --

Date of Assessment: (mm/dd/yyyy)            --/--/----

1. Uyabhema yini igwayi?                    Yebo                                    Hatshi

Nxa impendulo kunyu “Yebo”, bala imbuzo elandelayo. Mbuzo munye ngamunye bhala impendulo oyibona iliqiniso kuwe

2. Nxa uvuka ekuseni ubhema ngemva kwesikhathi esinganani?  
  5 imizuzu                                    31 to 60 imizuzu  
  6 to 30 imizuzu                            60 imizuzu

3. Ukuzwa kunzima yini ukuzibamba ukubhema, lasezindaweni lapha okungavunyelwa khona njengesontweni, indlu zokubalela lemabhayisikopo?  
  Yebo    Hatshi

4. Yisiphi isikhathi sokubhema okungaba nzima ukuthi wekele ukubhema ngaso  
  Elokuqala ngivuka                        iloba yisiphi isikhathi

5. Ubhema amagwayi amangaki ngelanga?  
  Tshumi kusiya phansi                    Amatshumi amabili lanye kusiya  
  Tshumi lanye                                Kwamathathu  
  Kusiya amatshumi amabili                Amatshumi amathathu lanye  
kusiya    kusiya phezulu

6. Ubhema kakhulu ekuseni nxa uvuka okudlula ilanga lonke?  
  Yebo    Hatshi

7. Uyabhema lanxa ugula okokuthi uyabe ulele ilanga lonke?

Imphumela yakho (your level of dependence on nicotine is):                    --

**Appendix I : Rosenberg's Self-Esteem Scale (English version)**

STATEMENT		Strongly Agree	Agree	Disagree	Strongly Disagree
1.	I feel that I am a person of worth, at least on an equal plane with others.				
2.	I feel that I have a number of good qualities.				
3.	All in all, I am inclined to feel that I am a failure.				
4.	I am able to do things as well as most other people.				
5.	I feel I do not have much to be proud of.				
6.	I take a positive attitude toward myself.				
7.	On the whole, I am satisfied with myself.				
8.	I wish I could have more respect for myself.				
9.	I certainly feel useless at times.				
10.	At times I think I am no good at all.				
<b>Total Score</b>					

Your Score on the Rosenberg Self-esteem scale is : .....

**Appendix I I : Rosenberg's Self-Esteem Scale (Shona version)**

Zvaunonzwa	Ndobvumirana nazvo zvikuru	Ndobvumirana nazvo	Handibvumi rane Nazvo	Handibvumi rane Nazvo zvikuru
1. Ndonzwa kuti ndiri munhu akainzana nevamwe				
2. Ndonzwa sekunge ndine zvakawanda zvakana				
3. Pane zvese ndoona sekunge ndino kundikana.				
4. Ndokwanisa kuita zvinhu sezvinoitawo vamwe vanhu				
5. Ndonzwa sekunge ndisina zvakawanda zvekudada nazvo				
6. Ndine mafungiro akanaka pamusoro pehupenyu hwangu				
7. Ndinogutsikana nezvandi pane zvese				
8. Ndoshuvira kuve nekuzviremekedza kukuru				
9. Dzimwe nguva ndonzwa kunge munhu asinabasa				
10. Nguva dzese ndofunga kuti handina kunaka zvachose				
Total Score				

**Zvibodzwa zvako paRosenburg self-esteem scale :.....**

**Appendix I II: Rosenberg's Self-Esteem Scale (isiNdebele version)**

Engikuzwayo	Ngiyavuma kakhulu	Ngiyavuma	Angivumelani lakho	Anvgivumelani lakho kakhulu
1. Ngizizwa ngingumuntu oqakathekileyo olingana labanye				
2. Ngizizwa ngilempawu ezinengi ezinhle kimi				
3. Ngizizwa ngiyisehluleki				
4. Ngiyakwanisa ukwenza izinto njengabo bonke abantu				
5. Ngizizwa ngingela okunengi engingazigqaja ngakho				
6. Ngilokuzi gqaja ngomuntu enginguye				
7. Ngiyeneliseka ngomuntu enginguye				
8. Ngiyafisa ukuthi ngibe lokuzihlonipha				
9. Ngezinye izikhathi ngizizwa ngingumuntu ongelancedo				
10. Ngezinye izikhathi ngizizwa ngingumuntu ongalunganga				
Total Score				

Impumela yakho ku Rosenberg Self Esteem scale .....

## Appendix J : Sexual Risk Behaviour, Beliefs and Self Efficacy Scales (English version)

Your beliefs Please fill in the answer for each question that best describes how you feel.		
<b>Response format for attitude and norm items:</b> <b>4 = Definitely Yes 3 = Probably Yes 2 = Probably No 1 = Definitely No</b>		
ASI1	I believe people my age should wait until they are older before they have sex	4 3 2 1
ASI2	I believe it's OK for people my age to have sex with a steady boyfriend or girlfriend	4 3 2 1
ACU1	I believe condoms (rubbers) should always be used if a person my age has sex.	4 3 2 1
ACU2	I believe condoms (rubbers) should always be used if a person my age has sex, even if the girl uses birth control pills	4 3 2 1
ACU3	I believe condoms (rubbers) should always be used if a person my age has sex, even if the two people know each other very well.	4 3 2 1
What do your friends believe? The following questions ask you about your FRIENDS and what they think. Even if you're not sure, mark the answer that you think best describes what they think		
NSI1	Most of my friends believe people my age should wait until they are older before they have sex.	4 3 2 1
*NSI2	Most of my friends believe it's OK for people my age to have sex with a steady boyfriend or girlfriend.	4 3 2 1
NCU1	Most of my friends believe condoms (rubbers) should always be used if a person my age has sex	4 3 2 1
NCU2	Most of my friends believe condoms (rubbers) should always be used if a person my age has sex, even if the girl uses birth control pills.	4 3 2 1
NCU3	Most of my friends believe condoms (rubbers) should always be used if a person my age has sex, even if the two people know each other very well.	4 3 2 1
How sure are you? What if the following things happened to you? Imagine that these situations were to happen to you. Then tell us how sure you are that you could do what is described		
<b>Response format for self-efficacy items:</b> <b>1 = Not Sure at All 2 = Kind of Sure 3 = Totally Sure</b>		
SER1	Imagine that you met someone at a party. He or she wants to have sex with you. Even though you are very attracted to each other, you're not ready to have sex. How sure are you that you could keep from having sex?	1 2 3
SER2	Imagine that you and your boyfriend or girlfriend have been going together, but you have not had sex. He or she really wants to have sex. Still, you don't feel ready. How sure are you that you could keep from having sex until you feel ready?	1 2 3
SER3	Imagine that you and your boyfriend or girlfriend decide to have sex, but he or she will not use a condom (rubber). You do not want to have sex without a condom (rubber). How sure are you that you could keep from having sex, until your partner agrees it is OK to use a condom (rubber)?	1 2 3

SECM1	Imagine that you and your boyfriend or girlfriend have been having sex but have not used condoms (rubbers). You really want to start using condoms (rubbers). How sure are you that you could tell your partner you want to start using condoms (rubbers)?	1 2 3
SECM2	Imagine that you are having sex with someone you just met. You feel it is important to use condoms (rubbers). How sure are you that you could tell that person that you want to use condoms (rubbers)?	1 2 3
SECM3	Imagine that you or your partner use birth control pills to prevent pregnancy. You want to use condoms (rubbers) to keep from getting STD or HIV. How sure are you that you could convince your partner that you also need to use condoms (rubbers)?	1 2 3
SECU1	How sure are you that you could use a condom (rubber) correctly or explain to your partner how to use a condom (rubber) correctly?	1 2 3
SECU2	If you wanted to get a condom (rubber), how sure are you that you could go to the store and buy one?	1 2 3
SECU3	If you decided to have sex, how sure are you that you could have a condom (rubber) with you when you needed it?	1 2 3
<p>What do you think about condoms? Please tell us how much you agree or disagree with the following statements. <b>Response format for barrier items:</b> <b>4 = I Strongly Agree 3 = I Kind of Agree 2 = I Kind of Disagree 1 = I Strongly Disagree</b></p>		
BCU1	It would be embarrassing to buy condoms (rubbers) in a store.	4 3 2 1
BCU2	I would feel uncomfortable carrying condoms (rubbers) with me.	4 3 2 1
BCU3	It would be wrong to carry a condom (rubber) with me because it would mean that I'm planning to have sex	4 3 2 1
<p><b>Key to identification of scale items</b></p> <p>ASI = Attitudes about sexual intercourse ACU = Attitudes about condom use NSI = Norms about sexual intercourse NCU = Norms about condom use SER = Self-efficacy for refusing sexual intercourse SECM = Self-efficacy for communicating about condom use SECU = Self-efficacy for buying and using condoms BCU = Barriers to condom use</p>		

**Appendix J II : Sexual Risk Behaviour, Beliefs and Self Efficacy Scales (Shona version)**

Zvaunotenda		
Ndapota nyora mhinduro pamubvunzo wega wega unonyatso tsanangura zvaunonzwa		
Response format for attitude and norm items: <b>4= Hongu Ndizvozvo 3 = Pamwe ndizvozvo 2= Pamwe hazvisizvo 1=Hazvisizvo</b>		
ASI1	Ndofunga vanhu vezera rangu vanofanira kumira kusvikira vakura vasati vaenda pabonde	4 3 2 1
ASI2	Ndofunga zvinoita kuti vanhu vezera rangu vaende pabonde neshamwari yechikomana kana yechisikana yakazvibata	4 3 2 1
ACU1	Ndofunga kuti condom inofanira kushandiswa nguva dzese kana munhu wezera rangu achiita zvebonde	4 3 2 1
ACU2	Ndofunga kuti condom inofanirwa kushandiswa nguva dzose kana munhu wezera rangu achiita zvepabonde, nyagwe musikana akashandisa mapiritsi ekuronga mhuri	4 3 2 1
ACU3	Ndofunga macondom anofanirwa kushandiswa nguva dzose kana munhu wezera rangu achiita zvepabonde, kunyangwe vanhu vaviri ava vachizivana chaizvo	4 3 2 1
Ko shamwari dzako dzinofunga kuti kudii?		
Mibvunzo inotevera inokubvunza nezve SHAMWARi dzako nezvavanofunga. Nyangwe usina chokwadi, nyora mhinduro yaunofunga kuti inonyatso tsanangura zvavanofunga		
NSI1	Shamwari dzangu zhinji dzinofunga kuti vanhu vezera rangu vanofanirwa kumira kusvika vakura vasati vaenda pabonde	4 3 2 1
*NSI2	Shamwari dzangu zhinji dzinofunga kuti zvinoita kuti vanhu vezera rangu vaende pabonde neshamwari yechikomana kana yechisikana yakazvibata	4 3 2 1
NCU1	Shamwari dzangu shinji dzinofunga kuti condom rinofanirwa kushandiswa nguva dzose kana munhu wezera rangu achiita zvepabonde	4 3 2 1
NCU2	Shamwari dzangu zhinji dzinofunga kuti condom rinofanirwa kushandiswa nguva dzose kana munhu wezera rangu achiita zvepabonde, kunyangwe musikana akashandisa mapiritsi ekuronga mhuri	4 3 2 1
NCU3	Shamwari dzangu zhinji dzinofunga kuti condom rinofanirwa kushandiswa nguva dzose kana munhu wezera rangu achiita zvepabonde, kunyangwe vaviri vachizivana chaizvo.	4 3 2 1
Une chokwadi chakadii?		
Ko kana zvinotevera zvikaitika kwauri? Chimbofunga kana zvinotevera zvikanzi zvaitika kwauri. Tiudze kuti une chokwadi chakadii chekuti unoita zviri kutsanangurwa?		
Response format for self-efficacy items: <b>1= Handina chokwadi zvachose 2= Ndinenge ndinechokwadi 3=Ndine chokwadi chese</b>		
SER1	Chimbofunga kuti wasangana neumwe munhu pamafaro. Munhu uyu anoda kuenda pabonde newe. Nyangwe hazvo akakunakira zvikuru naiyewo achiona wakamunakira zvikuru, hauna kugadzirira kuita zvebonde. Une chokwadi chakadii chekuti unogona kuzvibata	1 2 3

	ukasaita zvepabonde?	
SER2	Chimbofunga kuti iwe neshamwari yako yechikomana kana yechisikana manga muri mese kwenguva, asi hamusati mamboenda pabonde. Iye akuda kuti muende pabonde. Iwe hausati waakuda. Une chokwadi chakadii chekuti unogona kuzvibata ukasaita zvepabonde kusvika wakuda.	1 2 3
SER3	Chimbofunga kuti iwe neshamwari yako yechikomana kana yechisikana mafunga kuenda pabonde, asi haasi kuzoshandisa condom. Une chokwadi chakadii chekuti unogona kuzvibata ukasaita zvepabonde kusvika umwe wako abvuma kushandisa condom?	1 2 3
SECM1	Chimbofunga kuti iwewe neshamwari yako yechikomana kana yechisikana manga muchienda pabonde musingashandise condom. Iwe waakunzwa kuda kutanga kushandisa condom. Unechokwadi chakadii chekuti unokwanisa kuudza umwe wako kuti waakuda kutanga kushandisa condom?	1 2 3
SECM2	Chimbofunga kuti urikuenda pabonde nemunhu wauchangosangana naye. Unoona zvakakosha kushandisa condom. Unechokwadi chakadii chekuti unokwanisa kuudza munhu iyeye kuti unoda kushandisa condom?	1 2 3
SECM3	Chimbofunga kuti iwe kana umwe wako munishandisa mapiritsi ekuronga mhuri kuti asabate pamuviri. Unoda kushandisa condom kuti usabate zvirwere zvepabonde kana HIV. Unechokwadi chakadii chekuti unokwanisa kuita kuti umwe wako anzwisise kuti unodawo kushandisa macondom?	1 2 3
SECU1	Unechokwadi chakadii chekuti unokwanisa kushandisa condom nemazvo kana kukwanisa kutsanangurira umwe wako kuti condom rinoshandiswa sei?	1 2 3
SECU2	Kana uchida condom, unechokwadi chakadii chekuti unogona kuenda kuchitoro wonoritenga?	1 2 3
SECU3	Kana wafunga zvekuenda pabonde, Unechokwadi chakadii chekuti unenge uine condom pauri paunenge uchirida?	1 2 3
<p>Unofungei pamusoro pemaCondom?  Ndapota tiudze kuti unobvumirana kana kusabvumirana zvakadii nezvinotevera</p> <p>Response format for barrier items:  4=Ndobvumirana nazvo zvikuru 3=Ndinenge ndinobvumirana nazvo 2=Ndinenge ndisingabvumirane nazvo 1= Handibvumirane nazvo zvachose</p>		
BCU1	Zvinonyadzisa kutenga macondom muchitoro	4 3 2 1
BCU2	Handinzwe kusununguka katakura macondom pandinenge ndiri.	4 3 2 1
BCU3	Zvakashata kutakura macondom pandinenge ndiri nekuti zvinoreva kuti ndirikuronga kuenda pabonde	4 3 2 1
<b>Key to identification of scale items</b>		
ASI = Maonero maererano nezvepabonde ACU = Maonero maererano nekushandisa condom NSI = Zvinotenderwa maererano nezvepabonde NCU = Zvinotenderwa maererano nekushandiswa kwecondom SER = Kukwanisa kuramba kuita zvepabonde SECM = Kukwanisa kukurukura maererano nekushandisa condom SECU = Kukwanisa kutenga nekushandisa macondom BCU = Zvinokonesa kushandisa condom		

**Appendix J II: Sexual Risk Behaviour, Beliefs and Self Efficacy Scales (isiNdebele version)**

Okukholelwayo		
Munye ngamunye umbuzo bhala impendulo echasisa ukuthi uzizwa njani		
Response format for attitude and norm items: <b>4= Yikho sibili 3 = Kungaba yikho 2= Kungabe kungayisikho 1=Ayisikho</b>		
ASI1	Ngikholwa ukuthi abantu abayintanga yami kumele bame ukuya emacansini baze bakhule okwedlula lokhu	4 3 2 1
ASI2	Ngikholwa ukuthi kulungile ukuthi abantu bentanga yami benze ezemacansini lenkazana kumbe umfana abakhombeneyo	4 3 2 1
ACU1	Ngikholwelwa ukuthi amacondom (umcwado) kumele usetshenziswe ngabantu bentanga yami nxa besenza ucansi	4 3 2 1
ACU2	Ngikholelwa ukuthi abantu bentanga yami nxa besenza ezemacansini kumele basebenzise amacondoms(umncwado) lanxa benatha amaphilisi okuvikela izisu	4 3 2 1
ACU3	Ngikholelwa ukuthi amacondoms (umncwado) kumele asetshenziswe ngabantu bentanga yami nxa besenza ezemacansini lanxa besazana ngokujula	4 3 2 1
Abangane bakho bakholelwani?		
Imibuzo elndelayo ibuza mayelana labangane bakho ukuthi bacabangani. Lanxa ungela qiniso bhala impendulo obona angani iseduze kakhulu.		
NSI1	Abangane bami abanengi bakholelwa ukuthi abantu bentanga yami kumele balinde ukwenza ezemacansini baze babebadala mbijana	4 3 2 1
*NSI2	Abangane bami abanengi bakholelwa ukuthi kulungile ukuthi abantu bentanga yami baqalise ezemacansini lenkazana kumbe lomfana abakhombeneyo	4 3 2 1
NCU1	Abangane bami abanengi bakholelwa ukuthi amacondoms( umncwado) kumele isetshenziswe ngabantu bentanga yethu nxa besenza ezemacansini	4 3 2 1
NCU2	Abangane bami abanengi bakholelwa ukuthi amacondoms ( umncwado) kumele asetshenziswe zikhathi zonke ngabantu bentanga yethu nxa besenza ezemacansini, lanxa unkazana esebenzisa amaphilisi okuvikela ukuzala	4 3 2 1
NCU3	Abangane bami abanengi bakholelwa ukuthi amacondoms (umncwado) kumele asetshenziswe ngabantu bentanga yami nxa besenza ezemacansini, lanxa besazana ngokujulileyo	4 3 2 1
Uleqiniso elingakanani?		
Nxa izinto ezilandelyo zingenzakala kuwe, uleqiniso elingakanani ukuthi ungenza lokhu okubhaliweyo?		

Response format for self-efficacy items: <b>1= Angilaqiniso ngitsho 2= Ngileqiniso mbijana 3=Ngileqiniso kakhulu</b>		
SER1	Nxa ungalangana lomuntu emcimbini. Afune ukwenza ezocansi lawe, wena ungelathando laye njalo ungalakulungeli ukwenza ezocansi. Uleqiniso okungakanani ukuthi ungayala?	1 2 3
SER2	Nxa wena lenkazana kumbe umfana elithandanayo belingakaqalisi ezemacansini abesesithi yena sefuna ukuqalisa, wena uzizwa ungalakulungeli lokho. Uleqiniso elinganani ukuthi ungayala ukuya laye emacansini?	1 2 3
SER3	Nxa wena lenkazana kumbe umfana elithandanayo lingacabanga ukuthi selifuna ukuqalisa ezemacansini kodwa ayale ukusebenzisa icondom (umncwado) wena ungfuni ukwenza kungelacondom. Uleqiniso kangakanani ukuthi ungenqaba aze omunye wakho avume ukusebenzisa icondom?	1 2 3
SECM1	Nxa wena lenkazana kumbe umfana elithandanayo beseliqalisile ezocansi lingasebenzisi icondom (umncwado). Usufuna ukusebenzisa, uleqiniso elinganani ukuthi ungamtshela omunye wakho ukuthi liqalise ukusebenzisa icondom (umncwado)	1 2 3
SECM2	Nxa lingabe lisenza ezemacansini lomuntu elisanda kuhlalanga, ubone angani kuqakathekile ukuthi lisebenzise icondom( umncwado). Uleqiniso elinganani ukuthi ungamtshela lowo muntu ukuthi ufuna ukusebenzisa icondom (umncwado)	1 2 3
SECM3	Nxa wena kumbe omunye wakho esebenzisa amaphilisi okuvikela izisu. Usufuna ukusebenzisa icondom (umncwado) ukuze unqothole iHIV kumbe ingulamakhwa. Uleqiniso okungakanani ukuthi unqalule ingqondo yomu nye wakho ukuthi lisebenzise icondom (umncwado)	1 2 3
SECU1	Uleqiniso elingakanani ukuthi unqasebenzisa icondom (umncwado) ngendlela eqondileyo kumbe uchasisele omunye wakho ukuthi icondom (umncwado) usetshenziswa njani?	1 2 3
SECU2	Nxa unqabe ufuna ukuthola icondom (umncwado), uleqiniso elingakanani ukuthi unqangena estolo uyethenga?	1 2 3
SECU3	Nxa unqacabanga ukuqalisa ezemacansini, uleqiniso elingakanani ukuthi ulecondom(umncwado) esambeni	1 2 3
Ucabangani ngamaCondom? Sitshele ukuthi uvumelana kangakanani kumbe awuvumelani kangakanani lalezi izitsho Response format for barrier items: 4=Ngiyavuma kakhulu 3=sengingavumelana lakho 2=sengingangavumelani lakho 1=angivumelani lakho kakhulu		
BCU1	Kungangiyangisa ukuthenga amacondom(umncwado)	4 3 2 1
BCU2	Kungangiphathi kuhle ukuthwala amcondom (umncwado).	4 3 2 1
BCU3	Akulunganga ukuthwela icondom (umncwado) ngoba kuyabe kusitsho ukuthi ngivele nginxwanele ukwenza ezemacansini	4 3 2 1
Key to identification of scale items ASI = imbono ngezemacansini ACU = imbono ngamacondom (umncwado) NSI = Inkolo ngezemacansini		

SER = ukwenelisa ukuyala ukuya emacansini  
SECM = ukwenelisa ukukhuluma ngokusetshenziswa kwamacondom  
SECU = ukwenelisa ukuthenga lokusebenzisa amacondom  
BCU = okuvimbela ukusetshenziswa kwamacondom

**Appendix K : Juvenile Victimization Questionnaire (JVQ) (English version)**

1. At any time in your life, in real life, did you SEE anyone get attacked or hit on purpose WITH a stick, rock, gun, knife, or something that would hurt? Somewhere like at home, at school, at a store, in a car, on the street, or anywhere else?

Yes..... 1

No.....0

2. At any time in your life, in real life, did you SEE anyone get attacked or hit on purpose WITHOUT using a stick, rock, gun, knife or something that would hurt?

Yes..... 1

No.....0

- 3 During your childhood, did any kids, even a brother or sister, pick on you by chasing you, grabbing you, or by making you do something you didn't want to do?

Yes..... 1

No.....0

- 4 During your childhood, did you get scared or feel really bad because kids were calling you names, saying mean things to you, or saying they didn't want you around?

Yes..... 1

No.....0

5. During your childhood, did any kids ever tell lies or spread rumours about you, or try to make others dislike you?

Yes..... 1

No.....0

5. During your childhood, did any kids ever keep you out of things on purpose, exclude you from their group of friends, or completely ignore you?

Yes..... 1

No.....0

6. Sometimes kids are hit by brothers, sisters, or cousins. During your childhood, did another child in your family ever hit or attack you on purpose? Somewhere like: at home, at school, at a store, in a car, on the street, or anywhere else?

Yes..... 1

No.....0

8. During your childhood, did any other kid ever hit you on purpose?

Yes..... 1

No.....0

**Next, we are going to ask about grown-ups who took care of you. This means parents, adults who lived with you, or Others who watched you.**

9. Not including spanking on your bottom, during your childhood did a grown-up in your life hit you?

Yes..... 1

No.....0

10. When you were a child, did you get scared or feel really bad because grown-ups called you names, said mean things to you, or said they didn't want you?

Yes..... 1

No.....0

11. When someone is neglected, it means that grown-ups didn't take care of them the way they should have. They might not get them enough food, take them to the doctor when they are sick, or make sure they have a safe place to stay. During your childhood, were you neglected?

Yes..... 1

No.....0

12. Was there a time in your life that you often had to look after yourself because a parent drank too much alcohol, took drugs, or wouldn't get out of bed?

Yes..... 1

No.....0

13. Was there a time in your life when you often had to go looking for a parent because the parent left you alone, or with brothers and sisters, and you didn't know where the parent was?

Yes..... 1

No.....0

14. Was there a time in your life when your parents often had people over at the house who you were afraid to be around?

Yes..... 1

No.....0

**The next set of questions are about people who have taken care of you – that would include your parents, stepparents, and your parents' boyfriends or girlfriends, whether you lived with them or not. It would also include other**

**grown-ups, like grandparents or foster parents, if they took care of you on a regular basis. When we say “parent” in these next questions, we mean any of these people.**

15. During your childhood, did one of your parents threaten to hurt another parent and it seemed they might really get hurt?  
Yes..... 1  
No.....0
16. During your childhood, did one of your parents, because of an argument, break or ruin anything belonging to another parent, punch the wall, or throw something?  
Yes..... 1  
No.....0
17. During your childhood, did one of your parents get hit or pushed by another parent?  
Yes..... 1  
No.....0
18. During your childhood, did one of your parents get kicked, choked, or beat up by another parent?  
Yes..... 1  
No.....0
19. Now we want to ask you about fights between any grown-ups and teens, not just between your parents. During your childhood, did any grown-up or teen who lived with you push, hit, or beat up someone else who lived with you, like a parent, brother, grandparent, or other relative?  
Yes..... 1  
No.....0

### **Assault**

20. At any time in your life, did any grown-up ever hit or attack you on purpose? This person could be a teacher, coach, someone else you know, or a stranger.  
Yes ..... 1  
No ..... 0
21. At any time in your life, did someone make you do sexual things when you didn't want to?  
Yes ..... 1

No ..... 0

### Follow-up Questions

\*If endorsed, all items (1 to 21) are asked follow-ups a, b, d, f, fa, fb, g, and h.

\*If endorsed, items 7, 8, 9, 20, and 21 are asked follow-up c.

\*If endorsed, items 11, 12, 13, 14, and 15 are asked follow-up e.

a. How old were you when this happened? [check all that apply]

- Early Childhood (birth to 5) ..... 1
- Childhood (6-12) ..... 2
- Adolescence (13-18) ..... 3
- Early Adulthood (19-25) ..... 4
- Adulthood (26 or older) ..... 5

b. How many times did this happen to you in your whole life?

***Answer the next questions about the last time this happened.***

c. Were you physically hurt when this happened?

- Yes ..... 1
- ... ..
- No ..... 0
- .... ..

d. Who did this?

- Brother or other boy child who lives with you (cousin, foster sibling, etc.) ..... 1
- .... ..
- Sister or other girl child who lives with you ..... 2
- Biological or adoptive father ..... 3
- Step-father or parent's boyfriend ..... 4
- Biological or adoptive mother ..... 5
- Step-mother or parent's girlfriend ..... 6
- A male relative (uncle, grandfather, etc.) ..... 7

A female relative (aunt, grandmother, etc.) .....	8
Your husband, boyfriend or ex-boyfriend .....	9
Your wife, girlfriend or ex-girlfriend .....	10
Another male adult you know (teacher, coach, friend, etc.) .....	11
Another female adult you know (teacher, coach, friend, etc.) .....	12
A boy you know (friend, schoolmate, etc.).....	13
A girl you know (friend, schoolmate, etc.).....	14
A male stranger.....	15
A female strange.....	16
Other, please specify.....	17

e. Who did this happen to? How do you know this person?

Brother or other boy child who lives with you (cousin, foster sibling, etc.).....	1
Sister or other girl child who lives with you.....	2
Biological or adoptive father.....	3
Step-father or parent's boyfriend.....	4
Biological or adoptive mother.....	5
Step-mother or parent's girlfriend.....	6
A male relative (uncle, grandfather, etc.).....	7
A female relative (aunt, grandmother, etc.).....	8

Your husband, boyfriend or ex-boyfriend.....	9
Your wife, girlfriend or ex-girlfriend.....	10
Another male adult you know (teacher, coach, friend, etc.).....	11
Another female adult you know (teacher, coach, friend, etc.).....	12
A boy you know (friend, schoolmate, etc.).....	13
A girl you know (friend, schoolmate, etc.).....	14
A male stranger.....	15
A female stranger.....	16
Other, please specify.....	17

f. Did any teen or grown-up see what happened besides you and the person who did this?

Family member of victim or perpetrator.....	1
Other person you know, such as a friend, teacher or neighbour.....	2
Police.....	3
Stranger.....	4
No one saw this.....	5

fa. Did anyone who saw what happened:

Help in any way.....	1
Make things worse.....	2

Both helped and made it worse .....3

Didn't help and didn't make it worse .....4

fb. Did any witness get hurt or threatened?

Yes .....1

No .....0

g. Thinking back to when it happened, how afraid did you feel? Would you say you felt:

Not at all afraid .....1

A little afraid .....2

Very afraid .....3

h. Did you miss any days of school, work, or your normal routine because of what happened?

Yes .....1

No .....0

SCORE:.....

*Appendix K I : Juvenile Victimization Questionnaire (JVQ) (Shona version)*

3. Pane here muhupenyu hwako pawakamboona umwe munhu achirohwa netsvimbo, dombo, pfuti, banga kana chimwe chinhu chinokuvadza?Kungava kumba, kuchikoro, kuchitoro, mumotokari, munzira kana imwewo nzvimbo?

Hongu.....1

Kwete.....0

4. Pane nguva here muhupenyu hwako pawakamboona umwe munhu achirwiswa kana kurohwa pasina kushandiswa tsvimbo, dombo, pfuti, banga kana chimwe chinhu chinokuvadza

Hongu.....1

Kwete.....0

5. Pahudiki hwako, pane vana here, vangave mukoma kana hanzvadzi akambokutandanisa, kukubata kana kukuitisa zvawakanga usingade kuita?

Hongu.....1

Kwete.....0

6. Pahudiki hwako, wakambonzwa kutya here or kushushikana nekuti vamwe vana vaikushedza nemamwe mazita, kutaura zvinokubhowa, kana kutaura kuti havadi kuti uvepo?

Hongu.....1

Kwete.....0

5. Pahudiki hwako, pane vamwe vana here vakambotaura manyepo kana kufambisa makuhwa pamusoro pako, kana kuyedza kuita kuti vamwe vasakufarire?

Hongu.....1

Kwete.....0

7. Pahudiki hwako, pane here vamwe vana vaikusiya kunze kwemitambo vachiziva, vaikusiya pachikwata chavo cheshamwari kana vaisada kutaura newe zvachose

Hongu.....1

Kwete.....0

8. Dzimwe nguva vana vanorohwa naana mukoma, sisi kana dzimwe hama. Pahudiki hwako pane here umwe mwana wemumhuri akambokurova Kana kukurwisa achida?Kungave kumbe, kuchikoro, kuchitoro, mumotokari, munzira kana imwewo nzvimbo?

Hongu.....1

Kwete.....0

8. Pahudiki hwako, pane umwe mwana here akambokurova achida?

Hongu.....1

Kwete.....0

Iyezvino tichakubvunza maererano nevanhu vakuru vakakuchengeta. Vangava vabereki, vanhu vakuru vakambogara newe, kana vamwe vaikuchengeta.

9. Tisingaverenge kurohwa kumagadziko, pahudiki hwako pane munhu mukuru here muupenyu hwako akambokurova?

Hongu.....1

Kwete.....0

22. Pawaive mwana mudiki, wakambonzwa kutya here kana kushushikana nekuda kwekuti vanhu vakuru vaikusheedza nemazita, vaikunyeya, kana kuti vaiti havakude?

Hongu.....1

Kwete.....0

23. Kana munhu asiiwa, zvinoreva kuti vanhu vakuru havana kumuchengeta sezvaifanirwa kuitwa. Vanogona kusawana chikafu chakakwana, kushaya anovaendesa kwachiremba kana vachirwara kana kushana anoona kuti vane pekugara pakanaka here. Pahudiki hwako wakambosiiwa wega here?

Hongu.....1

Kwete.....0

24. Pane nguva here muupenyu hwako pawakambo zvichengeta nekuda kwekuti mubereki ainwa doro zvikuru, aitora zvinodhaka kana kuti aigara akavata asingamuke?

Hongu.....1

Kwete.....0

25. Pane nguva here muupenyu hwako pawaimbonotsvaga mubereki nekuda kwekuti anenge akusiya wega, kana kuti mukoma na sisi nekuti waisaziva kuti mubereki arikupi?

Hongu.....1

Kwete.....0

26. Pane nguva here muupenyu hwako pakambounzwa vamwe vanhu vawaitya pamba nevabereki vako?

Hongu.....1

Kwete.....0

Mibvunzo inotevera iri maererano nevanhu vakambokuchengeta vanosanganisira vabereki vako, shamwari dzechirume kana dzechidzimai dzevabereki vako, nyangwe wakagara navo kana usina. Zvinosanganisirawo vamwe vanhu vakuru saana sekuru nambuya kana vabereki vekupiwa kana vaikuchengeta nguva zhinji. Kana tichiti mubereki mumibvunzo inotevera, tinoreva vanhu vakawanda ava vatareva.

27. Pahudiki hwako, pane here umwe mubereki akambo vhundutsira achida kurova umwe mubereki wako zvaiita kunge angangokuvadzwa chaizvo?

Hongu.....1

Kwete.....0

28. Pahudiki hwako, pane umwe mubereki here akambo putsa zvinhu zveumwe mubereki nekuda kwekukakavadzana, kurova madziro, kana kukanda chimwe chinhu?

Hongu.....1

Kwete.....0

29. Pahudiki hwako, pane mubereki here akamborohwa kana kusundidzirwa neumwe?

Hongu.....1

Kwete.....0

30. Pahudiki hwako, pane umwe mubereki wako here akambokaviwa, kudzipwa kana kurohwa neumwe mubereki?

Hongu.....1

Kwete.....0

31. Iyezvino taakuda kubvunza maererano nekurwa kwevanhu vakuru nevadiki, kwete vabereki chete. Pahudiki hwako, pane vanhu vakuru here kana vadiki vaigara newe vakasunda kana kurova umwe wamaigara naye, semubereki, mukoma, mbuya, sekuru kana imwewo hama?

Hongu.....1

Kwete.....0

#### Kurova

32. Pane imwe nguva muupenyu hwako, pane munhu mukuru here akambokurova kana kukurwisa achida. Angangova mudzidzisi, coach, umwe munhu waunoziva kana wausingazive?

Hongu.....1

Kwete.....0

33. Pane nguva here muupenyu hwako, pawakamboitiswa zvepabonde neumwe munhu usingade?

Hongu.....1

Kwete.....0

Mibvunzo inotevera

\*Kana abvuma, pamibvunzo yese (1-21) bvunza mibvunzo inotevera a, b, d, f, fa, fb, g, and h

\*Kana abvuma, mibvunzo 7,8,9,20,and 21 bvunza mibvunzo inotevera c

\*Kana abvuma, mibvunzo 11,12,13,14 and 15 anobvunzwa mubvunzo unotevera e

a. Wanga uine makore mangani pazvakaitika? (Tarisa zvinoenderana)

Ndichiri mudiki (kubva pakuzvarwa kusvika 5 years).....1

Ndichiri mudiki (Makore matanhatu kusvika gumi nemaviri).....2

Ndabvazera (makore gumi nematatu kusvika gumi nemasere).....3

Ndichango kura (makore gumi nemapfumbamwe kusvika makumi maviri nemashanu).....4

Ndakura (makore makumi maviri nematanhatu zvichikwira).....5

b. Zvakaitika kangani muhupenyu hwako?

Pindura mibvunzo inotevera maererano nekuti

Zvakapedzisira kuitika riini?

c. Wakakuvara here pazvakaitika?

Hongu..... 1

Kwete..... 0

d. Ndiani akaita izvi?

Mukoma kana umwe mukomana anogara nemi.....1

Sisi kana umwe musikana aigara nemi.....2

Baba vako chaivo kana vekupiwa.....3

Murume wamai asiri baba vako kana shamwari yamai yechirume.....4

Mai vako chaivo kana vekupiwa.....	5
Mudzimai wababa asiri amai vako kana shamwari yababa yechidzimai.....	6
Hama yechirume (bamnini, sekuru).....	7
Hama yechidzimai (tete, ambuya).....	8
Murume wako, shamwari yechirume kana aimbive shamwari yechirume.....	9
Mukadzi wako, shamwari yechikadzi kana aimbove shamwari yechikadzi.....	10
Umwe murume mukuru waunoziva (mudzidzisi, shamwari).....	11
Umwe mukadzi mukuru waunoziva (mudzidzisi, shamwari).....	11
Mukomana waunoziva (shamwari, waunodzidza naye).....	13
Musikana waunodzidza naye (shamwari, waunodzidza naye).....	14
Murume wausingazive.....	15
Mukadzi wausingazive.....	16
Kana vari vamwe, tsanangura.....	17

e. Zvakaitika kunaani ? Munozivana sei nemunhun uyu?

Mukoma kana umwe mwana mukomana anogara nemi.....	1
Sisi kana umwe musikana anogara nemi.....	2
Baba vako chaivo kana vekupiwa.....	3
Murume wamai asiri baba vako kana shamwari yamai yechirume.....	4

Amai vako chaivo kana vekupiwa.....	5
Mudzimai wababa asiri amai vako kana shamwari yababa yechidzimai.....	6
Hama yechirume (bamnini, sekuru).....	7
Hama yechikadzi (tete, ambuya).....	8
Murume wako, shamwari yechirume kana aimbove shamwari yechirume.....	9
Mukadzi wako, shamwari yechikadzi kana aimbove shamwari yechikadzi.....	10
Umwe murume mukuru waunoziva (mudzidzisi, shamwari).....	11
Umwe mukadzi mukuru waunoziva (mudzidzisi, shamwari).....	12
Mukomana waunoziva (shamwari, waunodzidza naye).....	13
Musikana waunoziva (shamwari, waunodzidza naye).....	14
Murume wausinga zvive.....	15
Mukadzi wausingazive.....	16
Kana kune vamwe, tsanangura.....	17

f. Pane umwe mwana mudiki kana munhu mukuru here akaona zvichiitika kunze kwako?

Umwe wemumhuri mekakazviita kana akazviitirwa.....	1
Umwe munhun waunoziva, akaita seshamwari, mudzidzisi kana muvakidzani.....	2
Mapurisa.....	3

Munhu wausingazive.....	4
Hapana akazviona.....	5

fa. Pane akaona zvakaitika here:

Akabatsira neimwe nzira.....	1
Akaita kuti zviwedzere.....	2
Akabatsira akaita kuti zviwedzere futi.....	3

fb. Pane akazviona here akakuvara kana kutyisidzirwa?

Hongu .....	1
Kwete .....	0

g. Rangarira pazvakaitika, wakanzwa kutya zvakadii? Ungati wakanzwa:

Kusatya zvachose.....	1
Kutya zvisihoma.....	2
Kutya zvikuru.....	3

h. Wakambosuwa here mazuva ekuchikoro, kubasa kana zvawaimboita mazuva ose nekuda kwezvakaitika?

Hongu .....	1
Kwete .....	0

Zvibodzwa .....

*Appendix K II : Juvenile Victimization Questionnaire (JVQ) (isiNdebele version)*

5. Empilweni yakho suke wabona umuntu ehlaselwa ngabomo ngesigodo, ngelitshe, ngombhombho, ngengqamu kumbe iloba yisiphi isikhali esilimazayo. Endaweni ezitshiyeneyo ezinjenge skolo, ngkhaya, estolo, emoteni, endleleni?

Yebo.....1

Hatshi.....0

6. Empilweni yakho uke wabona umuntu ehlaselwa kumbe etshaywa ngabomo kungasetshenziswa izigodo, ilitshe, umbhobho, ingqamu kumbe yisiphi isikhali?

Yebo.....1

Hatshi .....0

- 7 Ekukhuleni kwakho kuke kwabakhona abantwana, umfowenu kumbe udadewenu obekuhlukumeza ngokukugijimisa, ekubamba kubi kumbe ekwenzisa izinto ongafuni kuzenza?

Yebo.....1

Hatshi.....0

- 8 Ekukhuleni kwakho uke wazizwa usesaba ngenxa yabanye abantwana bekubiza ngamabizo amabi, bekhuluma izinto ezimbi, kumbe bengafuni kudlala lawe?

Yebo.....1

Hatshi.....0

5. Ekukhuleni kwakho, kuke kwabakhona yini abanye abantwana abakhulume amanga ngawe, kumbe bazame ukwenze abanye abantwana bengakuthandi

Yebo.....1

Hatshi.....0

5. Ekukhuleni kwakho kuke kwaba labantwana abakade bengakutsheli izinto ngabomo, bengakufuni emaqenjini bangane babo kumbe bekuziba nje?

Yebo.....1

Hatshi.....0

6. Kwezinye izikhathi abantwana batshaywa ngabanewabo kumbe odadewabo kumbe abafowabo, ekukhuleni kwakho kuke kwabakhona yini emulini umtwana obekutshaya ekuhlukumeza ngabomo? Endaweni ezifana leskolo, ngekhaya, ezitolo, emoteni, endleleni kumbe yiloba yiphi indawo?

Yebo.....1

Hatshi.....0

8. Ekukhuleni kwakho kuke kwabakhona yini umtwana okutshaye ngabomo?

Yebo.....1

Hatshi.....0

Okulandelayo sizacela ukukubuza ngabantu abadala abakunakelelayo. Lokhu kugogqela abazali, abadala oke wahlala labo, kumbe nguwuphi umtomdala

9. Singasabali ukuphansulwa, usakhula uke kwabakhona umtomdala oke waktshaya?

Yebo.....1

Hatshi.....0

34. Usakhula uke wezwa ulokwesaba ngenxa yabadala abakubiza ngamabizo amabi, bekuthethisa kumbe besithi abakufuni?

Yebo.....1

Hatshi.....0

35. Nxa umuntu enganakekelwa, kutsho ukuthi abantu abadala abamnakekeli ngendlela. Bangabe bengamniki ukudla okwaneleyo, bengabahambisi esbhedlela nxa begula kumbe bengabaphi indawo ephiphileyo yokuhlala. Usakhula uke wanganakelelwa?

Yebo.....1

Hatshi.....0

36. Kuke kwaba lesikhathi yini obekumele uzinakekele ngoba umzali unathe kakhulu utshwala, udle izidakamizwa kumbe ubengenelisi ukuvuka embhedeni?

Yebo.....1

Hatshi.....0

37. Usakhula kuke kwaba lesikhathi sokuthi besokufanele uyedinga umzali wakho ngoba ekutshiye wedwa, labanewenu kumbe odadewenu lingakwazi ukuthi umzali ungaphi?

Yebo.....1

Hatshi.....0

38. Usakhula kuke kwabakhona yini isikhathi abazali bebesiba lezivakatshi obuzesaba

Yebo.....1

Hatshi.....0

Imbuzo elandelayo imayelana labantu abakunakekelayo okugogqela abazali, umama osethethwe nguyihlo, kumbe ubaba osethethwe unyoko, kumbe abantu abakhonjwe ngabazali bakho, oke wahlala labo longazange uhlale labo. Kuyagogqela ugoro, ukhulu kumbe abantu abakugcinayo nje.

39. Usakhula kukekwabakhona umzali oke wethusela omunye umzali wesaba ukuthi bangalimizana

Yebo.....1

Hatshi.....0

40. Usakhula kukekwabakhona ngemva kwengxabano oqamule imphahla yomunye umzali otshaye umduli ngengqindi or ajike imphahla yomunye umzali

Yebo .....1

Hatshi.....0

41. Usakhula kuke kwabakhona omunye wabazali oke watshaywa kumbe wafuqwa fuqwa ngomunye umzali

Yebo.....1

Hatshi.....0

42. Usasengumtwana kuke kwabakhona omunye wabazali bakho, oke wakhahlelwa, wakhanywa kumbe watshaywa ngomunye umzali

Yebo.....1

Hatshi .....0

43. Okwakhathesi sesibuza ngokulwa kwabantu abadala kumbe abantwana abadala kulawe Usakhula kuke kwabakhona yini umtomdala kumbe umfowenu omdala oke wafuqa, watshaya omunye umtomdala ebe lihlala laye

Yebo.....1

Hatshi.....0

#### Ukutshaywa

44. Empilweni yakho kuke kwabakhona yini umtomdala okutshaye ngabomo. Okugogela umbalisi, umqeqeshi wezemidlalo kumbe umuntu nje omaziyo

Yebo .....1

Hatshi.....0

45. Empilweni yakho kuke kwabakhona umuntu oke wakwenzisa izinto zocansi obungafuni ukuzenza?

Yebo.....1

Hatshi.....0

Imibuzo elandelayo

\*Nxa evumile yonke imbuzo (1-21) buza imbuzo elandelayo a, b, d, f, fa, fb, g, and h

\*Nxa evumile imbuzo, 7,8,9,20,and 21 buza imbuzo elandelayo

\*nxa evumile imbuzo 11,12,13,14 and 15 buza u e

a. Wawulemnyaka emingaka kusenzakala? (khangela okuhambelanayo)

Ngimncane (kusukela ngizalwa kusiya ku5 years).....1

Ngisakhula (imnyaka eyisikhombisa kusiya kutshumi lanye).....2

Sengithombile (iminyaka elitshumi lantathu kusiya kutshumi lasitshiya galo mbili).....3

Sengikhula khulile (imnyaka elitshumi lasitshiya galo lunye kusiya kumatshumi amabili lanhlanu).....4

Sengikhulile ( iminyaka engamatshumi amabili laskhombisa kusiya phezulu).....5

b. Lokhu kwenzakala kangaki empilweni yakho?

*Phendula imbuzo ukuthi kwacina nini ukwenzakala?*

c. Walimala emzimbeni kuze kwenzakale lokhu?

Yebo.....1

Hatshi.....0

d. Ngubani owenza lokhu?

Umnewenu kumbe umfana elihlala laye( umzawakho, kumbe abafowenu elingazalwa lonke).....1

Udadewenu kumbe umtwana oyinkazana ohlala laye .....2

UBaba okuzalayo kumbe owakukhulisayo.....3

Ubaba othethe umama kumbe ijaha lakhe .....4

Umama okuzalayo kumbe umama

owakukhulisayo.....	5
Umama othethwe ngubaba kumbe okhombe ubaba.....	6
Isihlobo esiyindoda (malume kumbe ukhulu).....	7
Isihlobo esingumama (ubabakazi, ugogo).....	8
Murume wako, shamwari yechirume kana aimbive shamwari yechirume..	9
Umfazi wakho, inkazana yakho kumbe owake waba yinkazana yakho.....	10
Omunye umuntu oyindoda (umbalisi, umngane ).....	11
Omunye umuntu omaziyo (umbalisi, umngane).....	11
Umfana omaziyo (umngane, umuntu elafunda lonke).....	13
Inkazana elazanayo (umngane, umuntu elafunda lonke).....	14
Umuntu oyindoda ongamaziyo .....	15
Umuntu ongumfazi ongamaziyo .....	16
Nxa kungomuye umuntu chasisa.....	17

e. Kwenzakala kubani? Umazi njani lumuntu ?

Umnewenu kumbe umfana ohlala laye( umzawakho kumbe umfowenu elingazalwa lonke.....	1
Udadewenu kumbe unkazana elihlala lonke .....	2
Ubaba okuzalayo kumbe owakukhulisayo.....	3
Ubaba othethe unyoke kumbe okhonjwe ngunyoko.....	4
Umama okuzalayo kumbe okukhulisileyo.....	5
Umama othethwe ngubaba wakho kumbe okhonjwe nguyihlo.....	6
Isihlobo esiyindoda (malume, ukhulu).....	7
Isihlobo esingumfazi (ubabakazi,ugogo).....	8

Indoda yakho, indoda othandana lao kumbe owake wathandana laye .....	9
Umazi wakho , umama othandana laye kumbe owake wathandana laye...	10
Omunye umtomdala oyindoda (umbalisi, umqeqeshi wezemdlalo).....	11
Omunye umtomdala omaziyo (umbalisi, umngane, umqeqeshi weze midlalo).....	12
Umfana omaziyo (umngane, umfana ofunda laye etc ).....	13
Unkazana omaziyo (umngane, unkazana , owafunda laye).....	14
Umuntu oyindoda ongamaziyo.....	15
Umuntu ongumfazi ongamaziyo.....	16
Nxa kulomunye, chasisa, .....	17

f. Kungabe kuke kwabakhona omunye umtwana osakhulayo kumbe umtomdala owabona okwenzakalayo ngaphandle kwakho lomuntu owakwenzayo?

Omunye wemuli kumbe yangakini kumbe eyomuntu owakuhlukumezayo.....	1
Omunye umuntu omaziyo onjengomngane, umbalisi kumbe umakhelwane.....	2
Umpholisa.....	3
Umuntu ongamaziyo.....	4
Akula owabonayo.....	5

fa. kwababonayo okwayenzakalayo:

Bakuncedisa yini .....	1
Benza isimo okuso sibe nzima kakhulu.....	2
Bancedisa babuya benza kwabanzima kakhulu.....	3

Kabancedisanga njalo abenzanga umumo wabanzima kakhulu.....4

fb.Kwaba bonayo ukhona yini owethuselwayo kumbe walinyazwa?

Yebo.....1

Hatshi.....0

g. Nxa usucabanga emuva kusenzakala waba lokwesaba okunganani? Ungathi wazizwa:

Awuzange ube lokwesaba.....1

Waba lokwesaba mbijana.....2

Waba lokwesaba kakhulu.....3

h. Kuze kwenzakale lokhu waba lesikhathi ungayi eskolo, ungasebenzi kumbe ungenzi izinto obujayele ukwuzenza nsukuzonke?

Yebo.....1

Hatshi .....0

Imiklomelo .....

**Appendix L : Multidimensional Scale of Perceived Social Support (MDPSS) (English version)**

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

- Circle the “1” if you **Very Strongly Disagree**
- Circle the “2” if you **Strongly Disagree**
- Circle the “3” if you **Mildly Disagree**
- Circle the “4” if you are **Neutral**
- Circle the “5” if you **Mildly Agree**
- Circle the “6” if you **Strongly Agree**
- Circle the “7” if you **Very Strongly Agree**

1.	There is a special person who is around when I am in need	1	2	3	4	5	6	7	
2.	There is a special person with whom I can share my joys and sorrows								
3.	My family really tries to help me.	1	2	3	4	5	6	7	
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7	
5.	I have a special person who is a real source of comfort	1	2	3	4	5	6	7	
6.	My friends really try to help me.	1	2	3	4	5	6	7	
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7	
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7	
9.	I have friends who I can share with my joys and sorrows	1	2	3	4	5	6	7	
10.	There is a special person in my life who cares about my feelings	1	2	3	4	5	6	7	
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7	
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7	

Score.....

**Appendix L II : Multidimensional Scale of Perceived Social Support (MSPSS) (Shona version)**

Maitirwo: Tinoda kuziva zvaunonzwa maererano nezvinotevera. Verenga zvinotevera nemazvo. Ratidza zvaunonzwa pane chimwe nechimwe chinotevera

Tenderdza “1” kana usingabvumirane nazvo zvachose  
 Tenderedza “2” kaana usingabvumirane nazvo zvikuru  
 Tenderedza “3” kana usingabvumirane nazvo zvishoma  
 Tenderedza “4” kana uripakati nepakati  
 Tenderedza “5” Kana uchibvumirana nazvo zvishoma  
 Tenderedza “6” kana uchibvumirana nazvo zvikuru  
 Tenderedza “7” kana uchibvumirana nazvo zvikurusa

1.	Pane munhu akakosha anenge aripo pandinenge ndichimuda	1	2	3	4	5	6	7	
2	Pane munhu akakosha wandinoudza kana ndakafara kana kuti ndakasuwa								
3	Mhuri yangu inozama chaizvo kundibatsira	1	2	3	4	5	6	7	
4.	Ndinowana rubatsiro rwandinoda kubva kumhuri yangu	1	2	3	4	5	6	7	
5.	Ndine munhu akakosha anonyatso ndinyaradza	1	2	3	4	5	6	7	
6	Shamwari dzangu dzinozama chaizvo kundibatsira	1	2	3	4	5	6	7	
7.	Ndinoziva kuti shamwari dzangu dzinondibatsira kana ndasangana namatambudziko	1	2	3	4	5	6	7	
8.	Ndinokwanisa kukurukura nemhuri yangu maererano nematambudziko andinosangana nawo.	1	2	3	4	5	6	7	
9.	Ndineshamwari dzandinokwanisa kuudza kana ndakafara kana kuti ndakasuwa.	1	2	3	4	5	6	7	
10.	Kune munhu akakosha muupenyu hwangu ane hanya nezvandinonzwa mumoyo.	1	2	3	4	5	6	7	
11.	Mhuri yangu inokwanisa kundibatsira kuzvisarudzira zvandinoda	1	2	3	4	5	6	7	
12.	Ndinokwanisa kutaura neshamwari dzangu maererano nematambudziko angu.	1	2	3	4	5	6	7	

Zvibodzwa.....

**Appendix L II: Multidimensional Scale of Perceived Social Support (MSPSS) (isiNdebele version)**

Isiqondiso: sifuna ukwazi ukuthi uzizwa njani ngokubhalwe ngaphansi. Bala mutsho munye ngamunye utsho ukuthi uzizwa njani

Gombolozela u “1” nxa ungavumelani lakho kakhulu okuzwayo  
 Gombolozela u “2” nxa ungavumelani lakho kakhulu  
 Gombolozela u “3” ungavumelani lakho mbijana  
 Gombolozela u “4” nxa ungalambono lakho  
 Gombolozela u “5” nxa uvumelana lakho mbijana  
 Gombolozela u “6” nxa uvumelana lakho  
 Gombolozela u “7” nxa uvumelana lakho kakhulu okuzwayo

1.	Kulomuntu oqathekileyo okuxhasayo ngesikhathi ufuna uncedo	1	2	3	4	5	6	7	
2.	Kulomuntu oqathekileyo oxoxa laye ngokukuthabisayo lokukudanisayo								
3.	Imuli yami iyazama ukungiduduza	1	2	3	4	5	6	7	
4.	Ngithola uncedo lwenduduzo kumuli yami	1	2	3	4	5	6	7	
5.	Ngilomuntu oqakatekileyo oba ngumthombo wenduduzo kimi	1	2	3	4	5	6	7	
6.	Abangane bami bayazama ukungincedisa	1	2	3	4	5	6	7	
7.	Ngiyazi aangane bami bazangincedisa nxa ngingaba lodubo	1	2	3	4	5	6	7	
8.	Ngiyenelisa ukuxoxa ngendubo zami lemuli yangakithi	1	2	3	4	5	6	7	
9.	Ngilabangane bami engenelisa ukuxoxa labo ngokungijabulisayo	1	2	3	4	5	6	7	
10.	Kulomuntu oqathekileyo empilweni yami onakekela imizwa yami	1	2	3	4	5	6	7	
11.	Imuli yangakithi bayafisa ukungincedisa ukwenza izinqumo	1	2	3	4	5	6	7	
12.	Ngiyenelisa ukuxoxa ngendubo zami labangane bami	1	2	3	4	5	6	7	

Score.....

## Appendix M - Participant Referral Form

Referral Letter

Date:

To the social worker/ clinical psychologist/ psychiatric nurse/psychiatrist

(Client's name) \_\_\_\_\_ (male/female)

aged \_\_\_\_\_ is being referred to you from the study entitled '**PREVALENCE AND FACTORS ASSOCIATED WITH DEPRESSION AND ANXIETY AMONG ADOLESCENT OFFENDERS WITHIN THE JUVENILE JUSTICE SYSTEM IN BULAWAYO AND MATABELELAND NORTH PROVINCE (S), ZIMBABWE,**' for further assessments and consideration for treatment. This client screened positive for the following mental disorder/condition (s);

<b>Mental disorder/ condition</b>	<b>Yes/NO</b>	<b>Screening tool</b>	<b>Score</b>
Depression		Centre for Epidemiological Studies Depression Scale (CES-D)	
Anxiety		Generalized anxiety disorder-7 (GAD-7)	
Alcohol use disorder		Full Alcohol Use Disorder Identification Test Consumption (AUDIT)	
Drug use disorder		Drug Use Disorder Identification Test (DUDIT)	
Nicotine dependency		Fagerstrom test for nicotine dependence (FTND)	

Sincerely,

The Principal Investigator/ Research Assistant

Cell number: 0773 387 917

## Appendix N - University of Cape Town Ethics approval (603/2019)



### FHS016: Annual Progress Report / Renewal

<b>HREC office use only (FWA00001637; IRB00001938)</b>			
<b>This serves as notification of annual approval, including any documentation described below.</b>			
<input checked="" type="checkbox"/> Approved	Annual progress report	Approved until/next renewal date	30-10-23
<input type="checkbox"/> Not approved	See attached comments		
Signature Chairperson of the HREC/ Designee			Date Signed 14/9/22

**Note:** Please email this form and supporting documents (if applicable) in a combined pdf-file to [hrec-enquiries@uct.ac.za](mailto:hrec-enquiries@uct.ac.za).  
Please clarify your plan for research-related activities during COVID-19 lockdown.  
Please use the latest form found on our website:  
<http://www.health.uct.ac.za/fhs/research/humanethics/forms>

Comments to PI from the HREC

#### Principal Investigator to complete the following:

##### 1. Protocol information

Date (when submitting this form)	12 September, 2022		
HREC REF Number	603/2019	Current Ethics Approval was granted until	30/10/2022
Protocol title	Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe.		
Protocol number (if applicable)			
Are there any sub-studies linked to this study?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
If yes, could you please provide the HREC Reference number for all sub-studies? <b>Note:</b> A separate FHS016 must be submitted for each sub-study.	N/A		
Principal Investigator	Prof. Katherine Sorsdahl		

## Appendix O - Medical Research Council of Zimbabwe Approval (MRCZ/B/1873)

Telephone: 08644073772/791193  
E-mail: [mrcz@mrcz.org.zw](mailto:mrcz@mrcz.org.zw)  
Website: <http://www.mrcz.org.zw>



Medical Research Council of Zimbabwe  
Josiah Tongogara / Mazowe Street  
P. O. Box CY 573  
Causeway  
Harare

### CONTINUING APPROVAL

MRCZ/B/1873

4 November 2021

**Marshall T. Marufu**  
UZ RSC  
P.O. Box A178  
Avondale  
Harare

**RE: - Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matebeleland North Province(s), Zimbabwe**

Thank you for the application for review of Research Activity that you submitted to the Medical Research Council of Zimbabwe (MRCZ). Please be advised that the Medical Research Council of Zimbabwe has **reviewed** and **approved** your application to conduct the above titled study.

This approval is based on the review and approval of the following documents that were submitted to MRCZ for review: -

1. Progress Report

- **APPROVAL NUMBER** : MRCZ/B/1873  
This number should be used on all correspondence, consent forms and documents as appropriate.
- **TYPE OF MEETING** : EXPEDITED
- **APPROVAL DATE** : 04 May 2021
- **EXPIRATION DATE** : 03 May 2022

After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the MRCZ offices should be submitted three months before the expiration date for continuing review.

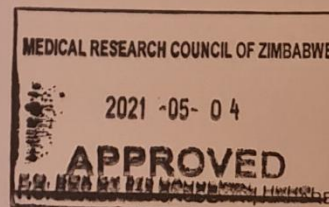
- **SERIOUS ADVERSE EVENT REPORTING:** All serious problems having to do with subject safety must be reported to the Institutional Ethical Review Committee (IERC) as well as the MRCZ within 3 working days using standard forms obtainable from the MRCZ Offices or website.
- **MODIFICATIONS:** Prior MRCZ and IERC approval using standard forms obtainable from the MRCZ Offices is required before implementing any changes in the Protocol (including changes in the consent documents).
- **TERMINATION OF STUDY:** On termination of a study, a report has to be submitted to the MRCZ using standard forms obtainable from the MRCZ Offices or website.
- **QUESTIONS:** Please contact the MRCZ on Telephone No. (0242) 791193, 0864407377203 or by e-mail on [mrcz@mrcz.org.zw](mailto:mrcz@mrcz.org.zw)

#### Other

- Please be reminded to send in copies of your research results for our records as well as for Health Research Database.
- You're also encouraged to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study.
- In addition to this approval, all clinical trials involving drugs, devices and biologics (including other studies focusing on registered drugs) require approval of Medicines Control Authority of Zimbabwe (MCAZ) before commencement

Yours Faithfully

MRCZ SECRETARIAT  
FOR CHAIRPERSON  
MEDICAL RESEARCH COUNCIL OF ZIMBABWE



PROMOTING THE ETHICAL CONDUCT OF HEALTH RESEARCH

**Appendix P - Request for permission to conduct study (Ministry of Labour and Social Welfare)**

The Provincial Social Welfare Officer  
Matabeleland North Province

20 November 2019

**RE : REQUEST FOR PERMISSION TO CARRY OUT ACADEMIC RESEARCH WITHIN DEPARTMENT OF SOCIAL WELFARE INSTITUTIONS**

I am kindly requesting for your permission to carry out my academic research study within the Department of Social Welfare institutions. I am a Social Welfare Officer and part time student studying towards an Mphil in Public Mental Health at the Allan J Flisher Centre for Public Mental Health through distance learning. I am therefore seeking your permission to collect data for my academic research project entitled *“Prevalence and factors associated with depression and anxiety among adolescent offenders within the juvenile justice system in Bulawayo and Matabeleland North Province(s), Zimbabwe”*.

The study is a cross sectional study and data will be collected through administering questionnaires. The research protocol for this study has been assessed and approved by the University of Cape Town Human Research Ethics Committee.

The purpose of the study is purely academic, and information obtained will not be publicized. Consent to participate will again be sought from parents or guardians and participants will also be asked to sign assent form if they are willing to participate. Data obtained will be kept in locked cabinets and password protected computers. Findings from this study will be shared with the Department of Social Welfare in order to assist in policy making for the purposes of improving our juvenile rehabilitation programmes.

Below is the list of all submitted documents

1. Confirmation letter from university
2. Research protocol (including questionnaires, consent and assent forms)
3. Letter of approval from University Human Research and Ethics Committee
4. Recommendation letter from Provincial Social Welfare Officer

Thank you for considering this application.

Yours Sincerely,



-----  
**M. MARUFU  
SOCIAL SERVICES OFFICER  
TSHOLOTSHO**

## Appendix Q - Study Approval (Ministry of Labour and Social Welfare)

*Official communications should  
Not be addressed to individuals*

Telephone: Harare 790872/7  
Telegrams "SECLAB"  
Private Bag 7707/7750



ZIMBABWE

MINISTRY OF PUBLIC SERVICE, LABOUR  
AND SOCIAL WELFARE  
Compensation House

Cnr Fourth Street and Central Avenue  
HARARE

SW 12/4

25 November 2019

Mr. Marshall T. Marufu  
C/o Bulawayo and Mat North Province

**PERMISSION TO CARRY OUT AN ACADEMIC RESEARCH ON TOPIC ENTITLED "PREVALENCE AND FACTORS ASSOCIATED WITH DEPRESSION AND ANXIETY AMONG ADOLESCENT OFFENDERS WITHIN THE JUVINELLE JUSTICE SYSTEM IN BULAWAYO AND MATEBELELAND NORTH PROVINCE": A CASE OF LUPANE, TSHOLOTSHO AND UMGUZA DISTRICT SOCIAL WELFARE OFFICES**

Receipt of your letter dated 21 November 2019 with the above mentioned matter is acknowledged.

Please be advised that permission is hereby granted for you to carry out a research on a topic entitled "PREVALENCE AND FACTORS ASSOCIATED WITH DEPRESSION AND ANXIETY AMONG ADOLESCENT OFFENDERS WITHIN THE JUVINELLE JUSTICE SYSTEM IN BULAWAYO AND MATEBELELAND NORTH PROVINCE": A CASE OF LUPANE, TSHOLOTSHO AND UMGUZA DISTRICT SOCIAL WELFARE OFFICES. Permission is granted **STRICTLY** on condition that the research is for academic purposes only in pursuit of your Mphil in Public Mental Health and that the data collected should not be shared to third parties.

You are kindly requested to submit a copy of your final research document to the Department of Social Welfare upon completion as your research has a bearing to the Department's mandate.

E C Gapara

**DIRECTOR HUMAN RESOURCES**

**FOR: SECRETARY PUBLIC SERVICE, LABOUR AND SOCIAL WELFARE**



## Signed Turn it in report

mrfmar006:UCT\_TURN\_IT\_IN\_-MTM\_-\_EDITED.pdf

### ORIGINALITY REPORT

<b>17</b> %	<b>11</b> %	<b>8</b> %	<b>7</b> %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

### PRIMARY SOURCES

<b>1</b>	Submitted to Midlands State University Student Paper	<b>4</b> %
<b>2</b>	amari-africa.org Internet Source	<b>1</b> %
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<b>4</b>	Brian Unis, Inger Johansson, Christina Sällström. "Rural High School Students' Sexual Behavior and Self-Esteem", Open Journal of Nursing, 2015 Publication	<b>1</b> %
<b>5</b>	www.researchgate.net Internet Source	<b>1</b> %
<b>6</b>	www.ncbi.nlm.nih.gov Internet Source	<b>&lt;1</b> %
<b>7</b>	Norman, Ian, Ryrie, Iain. "The Art and Science of Mental Health Nursing: Principles and Practice", The Art and Science of Mental Health Nursing: Principles and Practice, 2018 Publication	<b>&lt;1</b> %

*Katherine Sorsdahl*