SUBSTANCE ABUSE AMONGST HIGH SCHOOL LEARNERS IN ENNERDALE, GAUTENG PROVINCE

By:

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DECLARATION

I, Debrah Mohale declare that the study on SUBSTANCE ABUSE AMONGST HIGH SCHOOL LEARNERS IN ENNERDALE, GAUTENG PROVINCE is a study that I conducted on my own and that all the sources that I have used have been quoted and acknowledged by means of complete citations and references. This work has not been submitted by me or any other person before for any other degree at any other university, or tertiary education institution.

Signed……………………………………… Date………………………

Debrah Mohale
ACKNOWLEDGEMENTS
All Honour and Glory be to the Lord our God most High for the opportunity and strength to complete my studies. It was not easy, but it was worth it.

I would like to acknowledge the staff at the Sefako Makgato Health Sciences University Department of Public Health for their contribution during my days as a student. They shared of their time selflessly.

They were very patient and helpful in imparting their knowledge and skills.

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6. My family for their patience and support, more especially my two children who went all out to take care of me during those long days and nights of studying.

7. All my friends and fellow colleagues (learners) who kept me motivated to go on.
Dedication

This study is dedicated to my cousin Pule Victor Diphoko who lost his life in September 2016 when he was stabbed to death by an unknown person while sitting outside a tavern, and my colleague and friend Sibongiseni Phumlani Mathebula who lost his life traumatically in October 2016 through a stab wound at the hands of his lover while they were both under the influence of alcohol.

I pray that their souls rest in eternal peace.
Abstract

Background

Substance abuse by adolescents continues to be a public health challenge, both nationally and internationally. School-going young people are increasingly reported to be using psychoactive substances, although the extent is often not fully known. The purpose of this study was to determine the prevalence of substance use, as well as associated factors within the high school context in Ennerdale, a Johannesburg township in Gauteng, South Africa.

Method

A cross-sectional quantitative survey, using self-administered questionnaires, was used to collect data from a sample of 351 learners at four high schools in Ennerdale.

Results

The results indicated that the prevalence of substance abuse for learners in this study was 30.52% with 52.12% of users being male learners and 47.87% female, of these 70.8% were coloured and 29.1% were black. Alcohol was found to be the most common substance of use, with 25.00% learners having abused alcohol. It was found that the mean age for the initiation of smoking was 14 (std. dev. 2.05), for drinking alcohol it was 14.11765 (std. dev. 2.32), for smoking dagga it was 14.64706 (std. dev.1.45) and for the use of other drugs it was 15.33333 (std. dev. 1.527525). The results revealed that most learners who used substances were in Grade 10 and Grade 11 with 87% of learners in those grades among current users. Factors found to be significantly associated with substance abuse were, being absent from school due to illness, engaging in activities during leisure time and spending time with friends.
Conclusion

Substance use is prevalent among adolescent learners in Ennerdale. Males were found to have a slightly higher prevalence of abuse than their female counterparts. Most common substances of use were alcohol, cigarettes and dagga. The social environment had an influence in the adolescent’s substance abuse.
Table of Content

DECLARATION ................................................................................................................................. II

ACKNOWLEDGEMENTS .............................................................................................................. III

DEDICATION ................................................................................................................................... IV

ABSTRACT ....................................................................................................................................... V

  BACKGROUND ............................................................................................................................. V
  METHOD .......................................................................................................................................... V
  RESULTS ......................................................................................................................................... V
  CONCLUSION ............................................................................................................................... VI

LIST OF FIGURES ........................................................................................................................... X

LIST OF TABLES ............................................................................................................................... XI

CHAPTER 1: INTRODUCTION ......................................................................................................... 1

  1.1. INTRODUCTION TO THE STUDY ....................................................................................... 1
  1.2. BACKGROUND OF THE STUDY: ENNERDALE AND SUBSTANCE ABUSE ................. 2
  1.3. PROBLEM STATEMENT ....................................................................................................... 5
  1.4. PURPOSE OF THE STUDY .................................................................................................... 6
  1.5. RESEARCH QUESTIONS ....................................................................................................... 6
  1.6. THE STUDY OBJECTIVES ................................................................................................. 6
  1.7. STUDY SIGNIFICANCE ....................................................................................................... 7

CHAPTER 2: LITERATURE REVIEW ............................................................................................. 8

  2.1 INTRODUCTION ....................................................................................................................... 8
  2.2. SUBSTANCE ABUSE AS A PUBLIC HEALTH PROBLEM .................................................... 8
  2.3. SUBSTANCE ABUSE IN AFRICA ......................................................................................... 10
  2.4. SUBSTANCE ABUSE AND FACTORS ASSOCIATED WITH SUBSTANCE ABUSE IN SOUTH AFRICA ........................................................................................................... 11
  2.5. PREVALENCE OF SUBSTANCE USE IN SOUTH AFRICA ............................................. 14
  2.6. COMMON DRUGS USED BY HIGH SCHOOL LEARNERS .............................................. 15
      2.6.1. Alcohol .......................................................................................................................... 16
      2.6.2. Tobacco ......................................................................................................................... 16
      2.6.3. Dagga/Cannabis/Marijuana ......................................................................................... 16
      2.6.4. Cocaine ......................................................................................................................... 17
      2.6.5. Other illicit drugs .......................................................................................................... 17
  2.7. DETERMINANTS OF SUBSTANCE ABUSE AMONG ADOLESCENTS . . ................. 17
      2.7.1. Age and gender .............................................................................................................. 17
      2.7.2. Economic status ...........................................................................................................' 18
      2.7.3. Peer pressure and media .............................................................................................. 18
      2.7.4. Family ............................................................................................................................ 18
      2.7.5. Availability and accessibility of substances ................................................................. 19
      2.7.6 Social difficulties .......................................................................................................... 19
      2.7.7. Protective factors for substance abuse ....................................................................... 19
      2.7.8. Resilience against substance abuse ........................................................................... 21
5.10. CONCLUSION ................................................................................................................................. 61
5.11. RECOMMENDATIONS...................................................................................................................... 61

REFERENCE LIST ...................................................................................................................................... 63

APPENDIXES ............................................................................................................................................ 69

APPENDIX A: SEFAKO MAKGATO HEALTH SCIENCE UNIVERSITY APPROVAL LETTER .............................................. 69
APPENDIX B: APPROVAL FROM THE GAUTENG DEPARTMENT OF EDUCATION ...................................................... 70
APPENDIX C: REQUESTING PERMISSION FROM THE DISTRICT OFFICE OF EDUCATION ........................................... 71
APPENDIX D: INFORMATION PAMPHLET TO PARENTS .............................................................................. 72
APPENDIX E: CONSENT FORM .............................................................................................................. 73
APPENDIX F: DATA COLLECTION TOOL .................................................................................................. 75
List of figures

Figure 1 Map of where Ennerdale is situated ......................................................... 3
Figure 2 Age Histogram......................................................................................... 35
Figure 3 Learner substance abuse patterns ................................................................. 40
Figure 4 Friends’ substance abuse patterns ............................................................... 43
Figure 5 Family uses of substances ........................................................................... 44
List of Tables

Table 1 Socio demographic characteristics ................................................................. 36
Table 2 Prevalence of substance use ........................................................................... 37
Table 3 Substance according to Age ........................................................................... 37
Table 4 Learner school activities ................................................................................. 38
Table 5 Learners experience of risky behaviour ......................................................... 39
Table 6 Age at which learners started using substances .............................................. 41
Table 7 Types of alcohol abused by learners .............................................................. 41
Table 8 Days last used alcohol ................................................................................... 42
Table 9 Learners view on substance abuse ................................................................. 44
Table 10 Reason for not using substances ................................................................. 45
Chapter 1: Introduction

1.1. Background to the study

Substance abuse, including alcohol, is a public health issue worldwide, especially in South Africa. It has increased dramatically since the 1990s, with the dawn of democracy, partly due to globalisation, political and social transformation, which led to changes in the regulation of trade, modernisation of world markets, as well as the movement of people and goods across the borders. The increased free movement between countries enabled ease of access and increased the availability and affordability of illicit substances. With the increase in the use of alcoholic beverages, and the affordability of other illicit drugs, an increase in the use of substances like alcohol, cigarettes, dagga and cocaine amongst high school teenagers has been noted as a concern to public health (Hamdulay & Mash, 2011).

The World Health Organisation (WHO) rated South Africa as a country with a high-risk problem of drinking for both men and women. In South Africa alcohol can be easily purchased at bottle stores, supermarkets, bars, shebeens and other unlicensed liquor stores which outnumber licensed ones, especially in disadvantaged communities (Seggie, 2012). This was also confirmed with a review done amongst vulnerable adolescents in five cities including Johannesburg, South Africa when the findings indicated that current alcohol use in Johannesburg was higher at a prevalence rate of 47.4% when compared to the other cities in developing countries and current cigarette smoking also had a high prevalence rate of 32.5% for Johannesburg and the lowest rate was Delhi, India, with 3.7%.

The high prevalence of substance use in South Africa is a major concern for public health because substance abuse carries significant health risks as well as social problems which include crime and violence. An adolescent who uses
substances will be more likely to experience violent acts and are likely to be involved in criminal activities, involvement in accidents and injuries as well as learners being injured and sometimes fatally wounded in road accidents and fights while under the influence of substances, risky sexual behaviour among learners engaging in unprotected sexual activities, scholastic problems with learners dropping out of school, mental and physical health problems that include depressive symptoms due to the use of cannabis, and alcohol (Morojele, Parry & Brooks, 2009).

Substance abuse has negative effects and consequences on an individual’s health associated with social problems that lead to the development of alcohol use and mental disorders, at a later stage in life. The use of substances like alcohol and other drugs decrease teenagers’ inhibitions and sex negotiation skills as well as an increase in their vulnerability to then engage in risky sexual behaviour.  

The Soul City Institute (2016) conducted a review of research studies on substance abuse amongst the youth in South Africa and found the abuse of drugs to be more pronounced in males than it was in females. The national survey of high schools (Soul City, 2016) indicated that substance abuse prevalence rates for Grade 8 to Grade11 learners taking alcohol to be at 50%, 30% for learners who smoked cigarettes, 13% for learners who had used cannabis, 7.4% for mandrax and 12% had used inhalants of various sorts. This trend is common in certain communities, including Ennerdale.

1.2. Background of the study: Ennerdale and substance abuse

Ennerdale is situated in the south of Johannesburg, Gauteng, South Africa; and its geographical coordinates are; 26°24′35″South and 27°50′13″East. It was originally named Mid-Ennerdale but due to growth it now has extensions, ranging from Extension 1 to Extension 14.
Ennerdale is a township in Johannesburg, South Africa which was declared as a coloured group area under the apartheid regime, but that has since changed after 1994. It has a population of about 71,185 people with 65.7% of its population comprising of Blacks (African) and 32.9% Coloured. Afrikaans and English are the primary languages used within the community. Like other peri-urban areas in South Africa, Ennerdale has seen a rise in substance abuse by high school learners with high levels of school drop-outs, unemployment and the emergence of “lolly lounges” which are houses used as drug hubs by criminals to
sell drugs and to lure young girls into prostitution and drug abuse (News24, 2012).

There is a non-profit organisation (NGO) within the community of Ennerdale known as Ladies of Hope that works closely with high schools in the area in a bid to combat substance abuse. They have a programme called *Stepping Stone* which is a holistic life skills programme that deals with issues such as substance use and abuse, rehabilitation, HIV/AIDS management, and sexual education just to name a few. It is a walk-in centre that also works on referrals from schools within the area of learners who are using substances. The NGO is self-subsiding and caters for 20 learners in a workshop session per month at schools, and 10 learners who attend individual dialogues at the centre each month. Although they do not have a data storage system, their monthly statistics indicated how huge the issue of substance abuse was at high schools in the Ennerdale community. During the individual dialogues conducted, the learners had indicated to social workers that they faced challenges that included; having abusive families, being neglected by parents, experiencing peer pressure to be socially accepted.

Substance abuse and early onset of alcohol use among school learners is a major public health concern that needs to be prevented by identifying the risk factors exposing leaners to substance and alcohol abuse. These include intrapersonal, interpersonal and environmental risks. Intrapersonal risks include; age, gender, grade level, race and self-esteem of learners. Interpersonal risks include; peer pressure, family conflict, punitive parenting styles as well as parental education; parental substance use and marital status of parents are some of the factors that expose learners to the early use of alcohol and other drugs. The amount of time these children spend with their parents contributes to their use of substances as they seek acceptance and recognition amongst their peers by modelling what they think is acceptable behaviour. The environmental risks include amongst others; a nurturing home environment, boredom where
learners have ample time with nothing to do, a lack of recreational facilities to keep them away from the streets, as well as the widespread acceptability of substance use and availability in their communities (Morojele et al, 2009; Onya et al, 2012).

Demographics like age, gender, educational level (grade), family member use of substances, peer use and peer pressure, as well as ease of access to the substance at schools are some of the factors associated with substance abuse by teenagers who attend school (Ghuman et al., 2012, Moodley et al., 2012 and Onya et al., 2012). Teenagers often engage in substance use activities from an early age with trends showing an increase as they move to higher grades, with parental and friends’ use of substances being identified as the most influential factors on the teenager’s use of substances. (Hamdulay & Mash, 2011; Tshitangano & Tosin, 2016).

Several studies found high prevalence rates of substance use amongst teenagers in urban areas as well as rural areas, with males showing a high substance abuse prevalence rate when compared to females in urban areas. However, females in the rural areas showed a lower prevalence rate, which may be associated with stricter cultural practices in the rural areas. (Flisher et al., 2003; Onya & Flisher, 2008; Moodley et al., 2012; Onya et al., 2012; Chauke et al., 2015).

1.3. Problem Statement

Studies in South Africa reported an increase in substance abuse by high school learners, despite all measures put in place by the government, which includes the National Drug Master Plan for 2013-2017 and work done by NGOs. The high prevalence of substance abuse in high schools affects both male and female learners. This has been aggravated by the emergence of cheap, affordable and accessible drugs like Nyaope/Wonga/hookah pipe, which are easily and readily
available in communities of low socio-economic status. Schools in these areas are not spared from the scourge of these drugs.

Despite several interventions like community awareness campaigns, newspaper reports, etc. anecdotal evidence suggests that substance abuse in this area is substantial. Although the indication of substance abuse among high school learners in Ennerdale is acknowledged, the extent of this public health problem is not known, hence the need for this study.

1.4. Purpose of the study

The purpose of the study was to determine the prevalence of substance abuse as well as to explore factors associated with abusing substances among high school learners in Ennerdale, Gauteng Province.

1.5. Research questions

a) What is the prevalence of substance abuse amongst high school learners in Ennerdale, Gauteng Province?

b) What are the factors associated with substance abuse amongst high school learners in Ennerdale, Gauteng Province?

1.6. The Study Objectives

a) To determine the prevalence of substance abuse amongst high school learners in Ennerdale, Gauteng Province.

b) To determine factors associated with substance abuse amongst high school learners in Ennerdale, Gauteng Province.
1.7. Study significance

The population of South Africa is mainly made up of young people under the age of 35 (Seggie, 2012) alcohol is said to be a common substance of abuse in this group. Substance abuse in this group of citizens poses significant health, psychological and social challenges, and this places a burden on the financial and social costs to treat and rehabilitate these young people (Morojele et al, 2009). Substance abuse shows geographical patterns, it is necessary to conduct this study in this area, as it has not been researched previously. The study will assist in identifying the extent of the problem, estimating the burden of substance abuse and contribute to policy making in dealing with the issue. It will contribute with understanding the nature and extend of substance abuse in South Africa.
Chapter 2: Literature Review

2.1 Introduction

Substance abuse amongst high school learners is a worldwide issue and it is not limited to South Africa only, but has been on the rise throughout the world, and in some developing African states like Nigeria, Iran, Brazil, Ghana and Ethiopia (Oshodi et al, 2010; Sanchez et al, 2013; Burhanu et al, 2014; Nahvizadeh et al, 2014; and Osei-Bonsu et al, 2017). Adolescence is a period of risk-taking, since young people may place high value on the benefits that risky actions may bring peer approval and they are less sensitive to negative feelings associated with the effects of substances like alcohol such as a hangover (Schantz, 2012). Although the substance of choice used by learners may not be similar in all areas, there are some substances that are common to most areas globally, these being alcohol, cigarette, dagga, marijuana, or cannabis and cocaine, with alcohol and or tobacco being reported to be used before experimenting with hard drugs like cannabis, cocaine and/or heroine (Morojele et al, 2009). This chapter focusses on the problem of substance abuse amongst high school learners, as well as the public health impact of their behaviour.

2.2. Substance abuse as a public health problem

Substance abuse is a global problem posing major public health challenges with the adolescents being more at risk of being affected. It is most common during the adolescent phase, which is a stage of great risk-taking which could lead to physical and mental complications (Schantz, 2012, Birhanu et al, 2014, Gopiram and Kishore, 2014). According to the World Drug Report (2016), globally 1 in 20 adults or a quarter of a billion people aged between 15- 64 have at least used one drug in the year 2014, with an estimate of 12% of the total number of people using drugs suffering from a drug use disorder.
Olumide et al. (2014) reviewed data from five vulnerable cities that included Baltimore (USA), Delhi (India), Ibadan (Nigeria), Johannesburg (South Africa) and Shanghai (China). Findings confirmed alcohol, cigarettes and marijuana as the common substances of choice with the mean age of initiation being 14.2 across the countries.

Drug abuse is a major public health issue in the USA among adolescents with complex and multiple psychosocial parameters shaping the adolescent cultural identity. It contributes to serious illness and or injuries with 78% of adolescents using substances especially alcohol. It is estimated that there are 2 billion alcohol users, 1.3 billion smokers and 185 million drug users globally (Salous and Hatim, 2010).

In Kyrgyzstan (Afghanistan) substance abuse is considered a major health threat for the youth because it has contributed to 60% of new HIV infections amongst the youth due to the use of injectable drugs (Somani and Meghani, 2016).

In a study that was conducted in Iran among high school students, the findings were consistent with other studies indicating the substance of choice for students being alcohol followed by smoking and lastly drugs (Baheiraei et al, 2013 and Poorasl et al, 2007). This is of interest because most Iranians are Shia Muslims, among which substance abuse is stigmatised. However, studies have reported an increase in cultural tolerance of some substances, like opium (Momtazi and Rawson, 2010). In Italy, 1 in 3 males as well as 1 in 4 female scholars at primary and secondary school had experimented with smoking, while 50% of both male and female learners had used alcohol. Although only 5% had used marijuana, these patterns are consistent with other studies across the globe (Gallimberti et al, 2015).

With the adolescence stage being a peak period for the initiation and use, the rate of substance abuse has increased, and according to Hemphill et al (2011),
the Australian data indicated that 26% of adolescents aged 14-19 were using alcohol, 10% currently smoke and 16% use illicit drugs, whilst in the USA 16% of Grade 8 students drink alcohol, 7% smoke cigarettes and 6% are using cannabis. This shows that the phenomenon is an international problem and is not only limited to South African.

2.3. Substance abuse in Africa

Substance abuse has seen an increase globally and in African countries due to the modernisation of the world markets leading to an increase in the advertisements of harmful alcoholic drinks. Due to poor control of the sale and use of psychoactive substances, including alcohol, these substances are easily accessible to adolescents and thus consumption has increased. The increase in consumption is often due to cheap prices because of popularity, competition, and the promotion of alcoholic beverages as compared to other drinks (Osei-Bonsu et al, 2017). Although this study was conducted in Ghana amongst the youth aged between 15-39, and not school learners, it indicates that the challenge of substance abuse is rife amongst the youth.

In Ethiopia studies conducted amongst school learners indicated that alcohol, cigarettes, khat and other substances were common with alcohol being the substance of choice (Birhanu et al, 2014, Dida et al, 2014). In Woreta (Northwest Ethiopia), the current prevalence rate of substance use was found to be 47.9%, with alcohol use at 40.9%, cigarettes at 6.8% and for khat 13.8%. Male use of substances is higher at 66% than female use which was at 34%. Factors associated with alcohol use included sibling use, family history of use and friend use (Birhanu et al, 2014). While in Bale Zone (Southeast Ethiopia), the current prevalence rate of substance use was found to be 34.8%, with alcohol use at 23.6%, cigarettes 4.6% and khat was 17.1%. Males were 10 times more likely to use substances than females. Age of initiation of substance was 15 with friend use, sibling use, and family use associated with use of substances (Dida et al,
2014). It is clear from the above that the use of substances by adolescents starts at an early age and poses a huge problem within different societies.

In Nigeria the prevalence rates for alcohol use among high school learners was 8.5%, cigarettes 4.7% and cannabis 3.9% with male use higher than female on the above-mentioned substances. The use of substances is not only limited to the above-mentioned substances, but the use of caffeine was high at 56.5%, the use of mild analgesics (Panado and aspirin) at 51.3% and antimalarial (chloroquine) drug use was at 50%. Reasons given for using these substances included relief from stress, self-medication to treat illnesses and to stay awake at night when studying (Oshodi et al, 2010).

Alcohol and ‘khat’ were the most commonly used substances in Addis Ababa and Butajira schools, with alcohol and cannabis more prevalent in private schools at 48% and 31% respectively than public schools at 56% and 1-3% respectively (Kassaye et al, 1999). Although these trends were for different areas within the African continent, they illustrate a picture of the seriousness of substance abuse amongst high school learners globally with rural areas less affected than urban and semi-urban areas being more affected. Such reports of the increased use of psychoactive substances across the African continent makes this public health problem a continental one.

2.4. Substance abuse and factors associated with substance abuse in South Africa

The increase of alcohol intake and other substance abuse among South African young people, including those of school going age, have been reported (Chauke et al., 2015).

South Africa is rated a score of 4 out of 5 for drinking 5 or more beers or glasses of wine at one sitting for men and more than 3 for women on a risky pattern of drinking. In South Africa alcohol can be easily purchased at bottle stores,
supermarkets, bars, shebeens and other unlicensed liquor stores which outnumber licensed ones especially in disadvantaged communities (Seggie, 2012).

The SACENDU report used to monitor alcohol, tobacco and other drug abuse trends in South Africa across all nine provinces found that the substance of preference differs per region with alcohol being the common substance in Gauteng, KZN and the Northern region (Limpopo and Mpumalanga). Cannabis was reported as the common substance at the Eastern Cape and KZN, while in the Western Cape the white pipe combination of cannabis and mandrax was the common substance of choice (Dada et al, 2015)

A review of literature conducted by the Soul City Institute (2016) showed that trends of substance abuse vary across geographical areas, e.g. between urban and rural areas. Several studies found that alcohol is the most commonly abused drug, in both rural and urban areas (Betancourt and Herrera, 2006; Onya and Flisher, 2008; Chauke, et al, 2015), Tshitangano and Tosin, (2016) found that in the Vhembe district rural area in Limpopo, the prevalence of substance abuse was very low with 6% of male and 2% of female learners having used a substance. Chauke et al, (2015); and Moodley et al, (2012) found the prevalent rate for alcohol abuse to be ranging between 51.4% to 52.7% for both males and females in Atteridgeville and Soshanguve Townships in the Gauteng Province.

In Cape Town, although Flisher et al, (2003) found that 27% of teenagers used tobacco whilst 31% used alcohol and 7% used cannabis; methamphetamine (Tik) was another substance that the youth used. It is prevalent in the coloured community and can be purchased from as little as R20 its prevalent rate was 9.2% in 2011 at Mitchell’s Plain (Hamdulay and Mash, 2011, Watt et al, 2014). Onya et al, (2012), reported a significant association between alcohol use and some demographic variables that include gender and age, having smoked a cigarette, being involved in destructive behaviours like stealing, damaging
property, carrying weapons, walking home alone at night, and anti-social behaviour like bullying, friends that use alcohol as well as ease of access to substances.

While Ghuman et al, (2011), reported in a study conducted in Southern Kwazulu Natal that age, sex, race, peer pressure and parental alcohol use are some of the determinants of adolescent alcohol use and binge drinking. Moodley et al, (2012) in South Africa identified a significant association between a learner’s dagga use and older siblings’ drug use, as well as the number of closest friends who use dagga (peer use) and lifetime use of dagga as associated with lifetime use of alcohol and cigarettes.

Other studies, conducted in Durban and Cape Town (Brook et al, 2006, Flisher et al, 2003) found that the older one gets, the more likely it is that they will use alcohol, and that more males than females were likely to use alcohol, with the white race being more than five times likely to use alcohol than any other race. Peer pressure (for learners with friends that drink alcohol) will most likely cause one to drink alcohol, as well as parental alcohol use playing a role in influencing children growing in that environment to use alcohol.

This study was consistent with the findings of Carney et al (2013) of a longitudinal study that was conducted at three-time points in the Cape Town Metropolis starting when learners were in Grade 7 (phase 1-1997), again when they were in Grade 10 (phase 2-1999) and lastly when they were in Grade 12 (phase 3-2001). They found that alcohol use increased at each phase of the study, it was 34.3% at phase 1, 46.1% at phase 2 and 63.3% at phase 3, cigarette smoking also increased at each phase from 34.7% at phase 1, 49.0% at phase 2 to 56.0% at phase 3 (Carney et al, 2013). The findings were the same for drug use which increased from 8.80% at phase 1 to 32.1% at phase 3. The three risk behaviours increased with age, indicating the older they get the more
likely they will continue using substances especially if started at an early stage of adolescence.

Wegner et al, (2006), however studied the extent of leisure boredom, and investigated the relationship between leisure boredom, substance use and demographic variables among high school learners. The results indicated peer pressure while not engaging in activities during leisure time as an associate for substance abuse however leisure boredom on its own was not an associated factor for substance abuse. Similar findings were made recently in a study review that was conducted based on longitudinal data from a five-year effective trial of Health Wise South Africa, an intervention designed to reduce substance abuse and risky sexual behaviour among the youth. Weybright et al, (2014) indicated that there was an association with a lack of recreational opportunities, and access to recreational facilities as factors that might diminish participation in healthy leisure. With a low healthy leisure, an adolescent might engage in substance use.

The above findings indicate that substance abuse is prevalent amongst high school learners in South Africa, at urban, rural and or peri-urban areas. It therefore remains a public health challenge that impacts not the physical and mental health of learners, but it also contributes to disruptions and problems with schooling and creates social health problems.

2.5. Prevalence of substance use in South Africa

The Soul City Institute (2016) did a review of research material that included books, technical papers, tacit information, and electronic database like Science Direct, Medline and EBSCO on drug abuse in South Africa that, was published between the years 2000-2016. The aim was to provide a report on the extent and impact of substance abuse intervention programmes amongst the youth of South Africa. Some of the findings in the report indicated that drug abuse is more
pronounced in males than females. World Drug Report (2016) on gender disparities and substance abuse indicates that males are three times more likely to use illicit drugs like cocaine, cannabis and amphetamines than females, due to the social environment.

A national survey of high schools by the Soul City Institute, (2016) indicated that substance abuse prevalence rates for Grade 8-11 learners were at 50% for alcohol, 30% for cigarette smoking, and 13% for cannabis, 7.4% for mandrax and 12% for inhalants of various sorts. A decrease was seen on illicit drugs like cocaine, mandrax and tik among males and for females dagga is still the common illicit drug of choice.

In their 2012 review, Ramsoomar and Morojele found that lifetime alcohol use is still high at 20-25% according to data from the South African Demographic and Health Survey (SADHS) and 49.1-49.6% as per the Youth Risk Behaviour Survey (YRBS) The age of initiation remained stable with the age of onset to alcohol being 13 for 12% of adolescents, but an increase in binge drinking amongst females was noted with more males having ever consumed alcohol, binge drinking and driving or walking under the influence. An increase in drunken driving and walking while under the influence of alcohol was also noted, as well as an association with high blood alcohol concentration with culpable homicide, suicide, violence and unintentional deaths.

2.6. Common drugs used by high school learners

As with global trends, alcohol, tobacco/cigarettes and marijuana/ dagga/ cannabis are substances that learners across South African high schools commonly use and abuse (Manu et al, 2016 ,Morojele et al, 2009). These drugs do not only have significant health risks, but they can be associated with serious social problems. The trend is probably due to ease of access for these drugs.
2.6.1. Alcohol
Alcohol is very attractive to the youth because consuming it at a young age is erroneously viewed as a sign of maturity. It includes beverages like wine, beer, ciders, distilled spirits, and vodka. It has a sedative-hypnotic effect leading to the depression of the cognitive function of the brain (Mothibi, 2014). According to the National Institute of Drug Abuse (NIDA), alcohol interferes with brain function especially the communication pathway. This may lead to changes in behaviour, mood swings and poor movement coordination. Drinking alcohol is not so much the problem, but rather the amount consumed which may increase the risk of violent behaviour. It also contributes to adolescent suicide, fighting and acts of robbery (Mothibi, 2014). The harmful use of alcohol results in the death of 2.5 million people annually, making it a global public health concern (Birhanu et al, 2014). For adolescents, alcohol use reduces decision-making ability which in turn increases the chances youths engaging in unwanted sexual activities with multiple partners leading to possible pregnancy and STI/HIV transmission.

2.6.2. Tobacco
According to NIDA, tobacco is a plant grown for its leaves which are dried, fermented and then used to produce tobacco products like cigarettes. It contains nicotine which is a highly addictive substance that makes it very difficult for people to stop smoking once they are addicted to the nicotine. Tobacco is the most risky factor for non-communicable diseases that include cardiovascular diseases (CVD), obstructive pulmonary diseases, malignancies of the respiratory and upper gastrointestinal tract and it is responsible for the deaths of more than 5 million people in developing countries (Birhanu et al, 2014).

2.6.3. Dagga/Cannabis/Marijuana
It is made from dried leaves of a hemp plant called the Cannabis sativa. It contains a mind-altering chemical called the delta 9-tetrahydrocannabinal (THC) and other related compounds (NIDA). Mothibi (2014) indicates that marijuana
affects the ability to concentrate, coordination and reaction time leading to accidents which are often fatal.

2.6.4. Cocaine
Cocaine is a powerful addictive stimulant made from the leaves of the coca plant in South America (NIDA). It is a central nervous system stimulant, a pure white crystalline powder (Mothibi, 2014). It is not a prevalent drug for high school learners and about 3% of patients admitted for treatment in the Western Cape and 14% in the Eastern Cape admitted to using cocaine as a primary or secondary drug of choice (SACENDU, 2015).

2.6.5. Other illicit drugs
Methamphetamine or Tik as it is commonly known, is a highly addictive synthetic psychostimulant that has psychological effects on the user that include increased energy levels and feelings of euphoria. It is mostly used by adolescents in Cape Town (Watt et al, 2014).

2.7. Determinants of substance abuse among adolescents

Literature has identified several factors to be significantly associated with substance abuse globally. However, the strength of such association is determined by interactions with other social factors.

2.7.1. Age and gender
Underage substance abuse is prevalent globally with the median age for onset of alcohol in the USA being 14 years (Somani and Meghani, 2016). Even though the mean age may differ from country to country underage substance use and abuse is prevalent. Olumide et al, (2014) in a study conducted in five cities- Johannesburg South Africa, Delhi India, Baltimore USA, Ibadan Nigeria and Shanghai China, found that the mean age for first time finishing a glass of alcohol ranged from 14.0 in Ibadan and Johannesburg to 14.5 in Shanghai and
Baltimore, with the mean age for cigarette use ranging from 13.1 to 14.9 years amongst adolescents in Ibadan and Shanghai. Males were found to be more likely to use substances than females at all 5 cities. Van Zyl (2013), using the Bronfenbrenner’s model in explaining reasons why young people use alcohol indicated that adolescence is a phase when young people experiment with different things and that they use substances in order to gain confidence in handling people and dealing with relations.

2.7.2. Economic status
Low socioeconomic status as well as high levels of unemployment has been reported to be a contributor to adolescence substance abuse. Adolescents living in poverty try to deal with its effects (which may include; stress, feeling hopeless and worthless) by using substance to escape their reality (Somani and Meghani, 2016, Van Zyl, 2013). However, other studies discount poverty as an absolute determinant as a high prevalence of substance abuse is often reported among adolescents from rich families (De Wit, 2009; Viner et al, 2012).

2.7.3. Peer pressure and media
Adolescents places high value on acceptance by their peers and will thus do anything that they think will make their peers accept them and respect them as being cool or part of a group. This is mainly the reason they give in to the pressure and end up using substances. This is also precipitated by the media as they advertise the use of alcohol as positive and acceptable in the community thus the youth think it is okay to drink (Van Zyl, 2013 and Somani and Meghani, 2016).

2.7.4. Family
Ghuman et al, (2012), indicates that parents and guardians are the most influential people with regards to substance use. This is because the parents are role models for their children and influence how they view the world. Parental use
of substances may cause adolescents to either use or experiment with substances. Somani and Meghani (2016) on the other hand indicate that children raised by single parents are at a higher risk to abuse substances than children raised by both parents. This was supported by the findings of Olumide et al, (2014) that the absence of a caring father figure contributed to alcohol use in Baltimore and Shanghai while strong peer support contributed to alcohol and cigarette use for the adolescents in Johannesburg and Shanghai.

2.7.5. Availability and accessibility of substances
According to Van Zyl (2013) and Somani and Meghani (2016), alcohol, cigarettes and drugs are easily accessible and affordable as they can be bought at illegal outlets found within communities including taverns, shebeens and spaza shops.

2.7.6 Social difficulties
Several studies have associated vulnerability to substance abuse to several social difficulties like chronic sorrow and loss of a mother (Smith, 2009), depression (Fergusson et al, 2005) and an unfavourable social environment (Mokwena and Morojele, 2014) and sexual abuse in childhood (Dube et al, 2005).

Goliath and Pretorius (2016) defines risk factors as those that enhance the likelihood that a person will engage in substance abuse, they are associated with harmful and negative outcomes, while protective factors are regarded as those associated with reducing the potential for substance use.

2.7.7. Protective factors for substance abuse
Protective factors lead to a reduced use of substances and they help decrease unhealthy behaviour (Goliath and Pretorius, 2016). They include the following:
2.7.7.1. Individual factors
The involvement of an individual in positive and meaningful activities, including a positive self-concept involves how one positively views the self-will to influence them positively and not use substances, if they view substance use as negative and bad. Having a positive self-confidence, a high self-esteem and good relationships with others are some of the characteristics that promotes a positive individual self-concept. Positive peer role models and the avoidance of peers who are prone to substance use, as well as friends who do not use substances enhance the individual’s resilience to substance use. (Goliath and Pretorius, 2016, Mothibi, 2014 and Soul City Institute, 2016).

2.7.7.2. Family environment
A positive family environment is one that is healthy and happy, where parental support is seen to be strong and it is significantly associated with the reduction of smoking and drinking for adolescents. The support includes emotional support, closeness to the children, and good communication. This is paramount to positive role modelling by parents. When parents monitor and manage adolescent behaviours and discuss critical values they want to impart like; hard work, goal setting, and showing respect to others as well as spending valuable time with the elderly, it will motivate adolescents to become responsible citizens (Chauke et al, 2014, Mothibi, 2014, Simantov et al, 2000 and Soul City Institute, 2016).

Adolescents consider their parents and guardians as the most influential people in their lives and will emulate what they do, so if parents are using substances adolescents are more likely to also use them (Van Zyl, 2013). Where parents are conventional (parents who have low levels of substance use) and maintain positive relationships with their adolescents the adolescent is less likely to be associated with substance using peers (Brook et al, 2006).
2.7.7.3. Religious protective factor

Religiosity—strong religious feelings or belief was found to be associated with lower substance abuse because of the discouragement of religious teachings to substance use and abuse (Birhanu et al, 2014). Religious affiliation is a protective factor since religious organisations have social norms that prohibit and limit the use of substances and may thus protect adolescents against negative peer influences, as a result adolescents who are involved with prosocial activities are less likely to use substances (Onya et al, 2012). However, Onya et al. (2012) found that the adolescents in Mankweng were a part of a traditional African tradition religion, and the Zion Christian Church (ZCC) who used alcohol as part of their rituals and customary practices thus exposing adolescents to alcohol use with a risk of potential use as it was seen as acceptable.

2.7.7.4. Social environment

A social environment that disapproves of substance use and offers access to positive leisure activities protects adolescents against substance abuse (Soul City Institute, 2016). Taking part in extracurricular activities like exercises and after school sport clubs was associated with a low risk of smoking and promoted healthy lifestyle choices (Simantov et al, 2000). Social skills like good communication were also found to be protective against substance abuse as the adolescent stands a better chance of withstanding peer pressure to use substances (Birhanu et al, 2014).

2.7.8. Resilience against substance abuse

Resilience denotes the ability to withstand a destructive environment by developing the resistance and thrive to succeed, despite negative factors within your existing context. It refers to the individual’s ability to respond positively to risk factors, their ability to overcome, to positively adopt and cope with adversity (Hills et al, 2016, Mosavel et al, 2015).

21
In a study conducted in Durban about the live experiences of street children regarding violence, substance use and resilience, Hills et al, (2016) found that despite their harsh and negative environment, children living on the street had the resilience due to personal and emotional strength, religious belief, supportive peer relationships and participation in sporting activities. These were protective factors for children with substance use as a coping mechanism to escape the stress they faced in the streets as it gave them a “high” that allowed them to escape their problems at that times.

However, in another study done outside of Cape Town by Mosavel et al, (2015) the narrative of the urban youth indicated that their resilience was due to the community connectedness, hope for their own future and the opportunity for self-advancement. The youth indicated the desire to have more recreational facilities within communities through the creation of youth centres, computer centres and sport facilities so that they could be more engaged in positive activities thus reducing the need to be involved in substance abuse. They hoped to better their living conditions and improve economic gain by being educated. Improvement and strengthening of social networks also builds on the resilience especially with the cultural ideals of “Ubuntu” which promotes togetherness and “Ukhungawano”, support in times of crises as the values that reflect collectivist orientation. These factors contribute to the resistance of the youth and acts as protective factors against substance abuse.

2.8. Effects of substance abuse

Substance abuse carries significant health risks as well as social problems which include the following; crime and violence, accidents and injury, risky sexual behaviour, scholastic problems like school drop-outs and low academic aspirations, mental and physical health problems (Morojele et al, 2009). These risks are precipitated by the fact that adolescents are at a stage where they might place more value on the benefits that they may gain from taking a substance
than they would on the effects of that substance. They would be more responsive to the approval they will get from their peers more than they would be sensitive to the effects of a hangover or the ill effects of a drug reaction that they might have. Their capacity for judgement and self-control is still not fully developed hence risky decision-making (Schantz, 2012).

Substance abuse increases the rate of morbidity, mortality and crime worldwide and contributes to high costs of health care as people using drugs get admitted, they get involved in accidents and/or are infected and affected by diseases. The burden of substance abuse is thus very high on communities (Somani and Meghani, 2016).

2.9. School based programmes against substance abuse

The Department of Basic Education (DBE) has developed a National Strategy for the prevention and management of alcohol and drug abuse amongst learners in schools. The policy mandate for the strategy is based on international and national policy guides (DBE, 2013).

International policies include the United Nations Convention on the rights of a child, and the African Youth Charter. Their mandate is to protect children aged 0 to 18, against the use of substances, as well as their involvement in the production and trafficking of substances, and the provision of substance use prevention curriculum in the schools (DBE, 2013).

Nationally the South African constitution makes provision for children’s rights to basic education, access to basic health care and social services. There is legislative provision for the redirecting of children aged 10 to 18 who are offenders to diversion programmes and substance abuse programmes (rehabilitation). Restorative justice is adopted in dealing with substance abuse amongst children as opposed to punitive approach (DBE, 2013).
National Drug Master Plan as revised (2012-2016) outlines the responsibilities of the DBE to combat substance abuse by providing effective substance education programmes and to include the alcohol and drug education into the Life Orientation curriculum. It also outlines the role of different stakeholders in combating drug abuse with the DBE responsible for empowering the youth to take charge of their destiny by being trained as peer educators to support other learners.

The South African School Act, 1996 (No.84 of 1996) has declared all schools as drug free zones and requires the schools to adopt the code of conduct supportive of a purposeful school environment that is dedicated to the improvement and maintenance of the quality of the learning process. Co-curricular activities like sports, peer education programmes and safety related activities reinforce the alcohol and drug education programme.

Other legislation within the education system caters for the testing of learners for drug use, the aim is to ensure that once the learner tests positive the necessary treatment, care and support is provided.

This strategy is an indication that the problem of substance abuse by learners is more than just a public health issue but rather a global issue that requires co-operative strategies to manage, so that schools are an environment that enables learning and that the problem can be prevented, detected early, and treatment, care and support is rendered where it could not be prevented.

2.10. Summary of chapter

The literature review has shown that the problem of substance abuse amongst high school students is a global challenge experienced by the USA, Brazil, Nigeria, Ethiopia and South Africa, amongst many others. It has attracted the attention of scholars in South Africa and elsewhere. These studies focused on the prevalence as well as factors that are associated with substance abuse as a
historical problem, as well as the influence of leisure on substance use and abuse. High school students are at a risky age when experimenting with substances and drugs. It is viewed as a sign of maturity hence they start at this age to use substances and later move onto using drugs. The burden that this challenge poses on public health justifies the need to conduct the study in order to evaluate the factors that influence substance abuse by learners. The study outcome may contribute in improving the preventative strategies to combat this problem.
Chapter 3: Methodology

3.1. Introduction

This chapter will explain the method used to conduct the study with information to support the choices made in using the specific method.

3.2. Study design and approach

A quantitative cross-sectional study design was used to conduct the study to determine the prevalence, as well as the factors that are associated with substance abuse amongst high school learners in Ennerdale. This was the appropriate method to use as it allowed the researcher to contact subjects and collect data at one point in time to obtain the relevant information required and to make inferences to the population of the study (which was high school learners) because it would be impossible to include all the high school learners in the study thus a sample of the learners was used to generalise the outcomes of the study.

The cross-sectional study was advantageous to use because it is easy to conduct, it is not costly and does not require a lot of time to conduct the study. It allowed the researcher to collect data from a pool of a population with varied characteristics and demographics known as variables that were used to analyse the data collected.

3.3. Study setting

The study was conducted among high schools in Ennerdale, a suburb south of Johannesburg. Historically, Ennerdale was declared as a coloured group area under the apartheid regime, but that has since changed after 1994. It has a population of about 71,185 people with 65.7% of its population comprising of Blacks (African) and 32.9% Coloureds. Afrikaans and English are the main languages used within the community.
Ennerdale is part of the City of Joburg (CoJ) Metropolis which has a high level of urbanisation and migration from South Africa and other African countries of people moving to Soweto (Region D), looking for better opportunities. This has influenced high levels of income, inequalities and unemployment rates for the youth. Ennerdale is a part of CoJ’s Region G, and has challenges of housing, sanitation and water with an increase of informal settlements around the area, it is carrying the brunt of poverty for the city. In 1997-1999 Region G had the lowest economic growth rate of 1.2% and in 2013-2016 it was even lower which contributed to the low socioeconomic status and high levels of poverty within the community (Karuaihe, 2013).

Ennerdale has four (4) public high schools with the number of learners at each school ranging from 773 to 1647. The total population for 2017 for the four schools was 4563 learners. All four schools were invited to be part of the study which included learners from Grade 8 to Grade 12. The study was conducted during the matric preliminary examination, thus the matriculates at one of the high schools were excluded from the study.

3.4. Study Population

High school learners from Grade 8 to Grade 12, who attend any of the four Ennerdale public high schools, were the population of interest. The age group of the population was from the age of 13 (thirteen) to the age of 20 (twenty).

3.5. Sampling technique

In an effort to get the largest sample as possible, a survey of all eligible participants was attempted, thus all the learners (4563) who were enrolled at the four high schools in Ennerdale for the 2017 academic year were invited to participate in the study. A total number of 550 questionnaires were handed out
with the aim of getting as much participation as possible, however only 315 were returned and 7 were excluded as they were spoilt (not completed).

3.6. Sample size

In order to meet the minimum sample for statistical power, the Rao soft sample size calculator was used to calculate the sample size. With a margin of error at 5%, a confidence level of 95% and response distribution of 50%, a sample size of 355 was calculated. To accommodate for non-response, a buffer sample of 15% was added and therefore a minimum sample size of 400 was used for the study.

3.7. Recruitment

After obtaining an ethical clearance certificate from the Sefako Makgato University Research and Ethics Committee (SMUREC), and approval from all the relevant authorities which included the Department of Education in Gauteng, and the District Manager of the Gauteng South Department of Education, the researcher contacted all the high schools in Ennerdale to seek an appointment with the principals. The researcher sought permission to access the school in order to conduct the study from the principals at the four high schools. Permission was granted by the principals at the four high schools and access was given to the researcher for the Grade 8 to 12 learners. The researcher requested permission to address the learners in order to explain the reasons for conducting the study and the process that will be followed while conducting the study, but due to exams this was not permitted. The principals allocated a teacher that was the researcher’s point of contact.

The researcher went to different classes from Grade 8 to Grade 12 at each school recruiting the learners for the study. The learners who volunteered to be
part of the study were then given a letter and a consent form to seek parental consent and permission for participation in the study.

Learners whose parents returned the signed consent form were included in the study and those whose parents declined were excluded. Learners who volunteered to participate could participate with their assent after they read the condition of participating in the study that was on the front page of the data collection tool indicating that they voluntarily participated in the study, and verbal consent was accepted from those learners. The consent forms were collected by the allocated teachers and handed to the researcher on the data collection day with a list of learners whose parents who had not given consent for the study for exclusion purposes.

3.8. Data collection

Data was collected from the 1st of September 2017 to the 30th of October 2017. The researcher went to each class where participating learners were and handed them questionnaires to be completed. On the given day of data collection at each school the researcher explained again to the learners the purpose of the study and gave learners the opportunity to be well-informed before taking part in the study. Some learners volunteered to participate on the day of data collection even though they did not bring back the parental consent forms, they were given a chance to read the disclaimer, and after they were given an explanation of what the study entailed, they were then allowed to make the decision whether or not they still wanted to be part of the study, thus verbal consent was accepted from the learners. These learners were aged 18 as a result, they could legally participate without parental consent. The researcher indicated that the study participation was voluntary and that learners could terminate their participation from the study anytime, and eight (8) learners decided to terminate participation
by not completing the data collection tool. Assent was not signed by the leaner to ensure that they remained anonymous.

3.9. Data collection tool

A participant-administered questionnaire, adapted from the 2017 National Youth Risk Behaviour Survey of the Centres for Disease Control and Prevention, was used to collect data. This questionnaire was tested and used to collect data for a similar study in the Free State. The tool was adapted and modified by the researcher. It was only in English and not translated to any other language, because English is the medium of instruction at all Ennerdale schools.

3.10. Data collection

Data was collected from September to October 2017. This was an extended period due to the school break in September, and matric learners were writing their preliminary examinations, which meant that the data could be collected on days they were not writing to help minimise the disturbances of the movements and to allow the teacher allocated to assist the researcher by taking them around the school and to different classes. The researcher went to each school at a specified and agreed date. On the data collection day, data was collected from learners who volunteered to participate in the study, who were at school, and whose parents had provided signed informed consent. The researcher was taken to the classrooms where the learners were addressed. The researcher introduced herself and the reason for conducting the study which was for educational purposes and that learners would not be getting any incentives for participating. The learners who had signed consent forms were requested to hand them in and the questionnaires were then distributed and completed by the learners. The completed questionnaires were placed in a box that was closed and taken by the researcher as soon as all the questionnaires were handed back. The questionnaire was completed within a period of 30 minutes. The
questionnaire was completed by participants without any assistance from the researcher. Data collection from each participating school was done once on a set day. Learners who were given questionnaires were 550 and those who participated and returned the questionnaires were 315 (308 used and 7 excluded).

3.11. Data analysis

Data was captured into Microsoft Excel, and exported to STATA version 13 for analysis. Descriptive statistics in the form of frequencies and percentages was used to determine the prevalence of substance abuse. Simple linear regression was used to explore any association between substance abuse and a range of variables that included age, gender, race, grade, number of children living at home, employment status of parents, educational level of both parents and religion. Lastly, a logistic regression was done to explore the strength of the factors associated with substance abuse by computing the odds ratio at 95% confidence interval and a p-value <0.05 was considered statically significant. The acceptable level of significance was set at 5%. When a logistic regression model was used for the complex variables, substance abuse was used as the response variable with 15 (fifteen) variables used as predictor variables to determine association, the study findings then confirmed missing class due to illness, friends use and engaging in activities during leisure times as associated with substance use with a P-value of p≤ .000 for all three variables.

3.11.1. Reliability and validity

Both the reliability and validity were enhanced by using the adapted National Youth Risk Behaviour Survey questionnaire, which has been used since 1990 on a biennial basis to measure risk behaviour of high school learners nationwide. Brener et al, (1995) indicate that tool has been used to measure amongst other risks tobacco use, alcohol and other drug use for learners in grade 7 to grade 12. The tool was found to be suitable for grade 8 to grade 12 learners after it was
test-retested on two occasions and showed substantial or higher reliability with a kappa statistic score of 61-100%. The tool’s reliability had also been established by previous studies and reviews conducted in South Africa (Soul City Institute, 2016 and Ramsoomar and Morojele, 2012).

3.11.2. Bias
Volunteer bias is present in this study because not all the learners were given a probable chance for selection and participation using a sampling process but those who could participate had to have parental consent allowing them to take part in the study. However, because some learners volunteered, selection bias was also introduced with those learners whose parents declined to consent for them to participate being left out of the selection process to participate in the study even if they wanted to participate.

This bias led to external validity which implied that the results of the study would be difficult to generalise due to the small sample size and selection process used.

The anonymous questionnaire enhanced objectivity because the participants’ identities were not required, thus ensuring that learners were willing to participate knowing that the information, they gave would remain anonymous.

3.12. Ethical considerations

Ethics approval to conduct the study was obtained from the Sefako Makgato Health Sciences University Research Ethics Committee (SMUREC) before data collection commenced. Permission to conduct the study was sought from the Department of Basic Education in Gauteng, the District Manager of the Gauteng South Department of Education and school management (Principals) of the participating schools. Informed consent was sought from parents of learners, and
in ensuring anonymity of the participants was maintained, no assent was requested from learners.

Participation was voluntary and participants were informed that they could withdraw from the study at any time without any penalty being imposed on them.

The data was kept in a locked and safe place to ensure confidentiality. Participants were informed not to give their names or any personal details on the questionnaire to ensure confidentiality and anonymity.

The researcher used classrooms that were allocated to her at the schools and pre-arranged with the school authorities for the purpose of handing out and collecting questionnaires. This was done in one sitting at each school on a given and agreed day. The researcher ensured that all questionnaires were handed in after the learners completed.
Chapter 4: Results

4.1. Introduction

This chapter presents the study results of the data collected from the four high schools in Ennerdale. The cross-sectional quantitative study attempted to meet the following objectives:

1. To determine the prevalence of substance abuse amongst high school learners in Ennerdale, Gauteng Province.

2. To determine factors associated with substance abuse amongst high school learners in Ennerdale, Gauteng Province.

Data was analysed using STATA version 13 and the results were presented descriptively in a form of frequencies and percentages, to determine the prevalence of substance abuse. An analysis to explore associations between categorical and continuous variables was done using a multiple logistic regression to explore the strength of factors associated with substance abuse. A p-value of 0.05% or less is statistically significant.

4.2. Response Rate

From a sample size of 400 respondents who were drawn from the four high schools in Ennerdale, a total of 308 responded, thus making a response rate of 77%, which is considered enough for a representative sample.

4.3. Descriptive results

The respond rate for the distributed questionnaires was 77% with 308 responses out of a target of 400 learners and 550 handed out questionnaires) which can be considered sufficient for a representative sample. The mean and median age of the learners was 16.3 and 16 respectively (SD=1.5) indicating that the sampled age was even distributed and the range was 8. As shown in Table1, of the
sampled learners 57.47% (N=177) were females and 42.53% (N=131) males. The learners sampled were in Grade 8 to Grade 12, with the majority of the learners in Grade 11 (37.99%, N=117). The majority of learners were Black 73.04% (N=214), with 82.72% (N=249) being Christian. The employment status of parents was found to be at 9.42% (N=29) for unemployed parents while those with secondary and tertiary education were 57.47% (N=177) for fathers and 75.23% (N=232) for mothers. For the number of children at home, 69.93% (N=214) had below 3 children in the family. This is illustrated clearly according to gender in the table below (table 1).

The age of the participants ranged from age 16 to 21 years as illustrated on the diagram 2 below.

![Figure 2 Age Histogram](image-url)
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (n=306)</strong></td>
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<td></td>
</tr>
<tr>
<td>13-15yrs</td>
<td>79</td>
<td>25.82</td>
</tr>
<tr>
<td>16-18yrs</td>
<td>208</td>
<td>67.97</td>
</tr>
<tr>
<td>19-21yrs</td>
<td>19</td>
<td>6.21</td>
</tr>
<tr>
<td><strong>Gender (n=308)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>131</td>
<td>42.53</td>
</tr>
<tr>
<td>Female</td>
<td>177</td>
<td>57.47</td>
</tr>
<tr>
<td><strong>Race (n=293)</strong></td>
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<td></td>
</tr>
<tr>
<td>Coloured</td>
<td>79</td>
<td>26.96</td>
</tr>
<tr>
<td>Black</td>
<td>214</td>
<td>73.04</td>
</tr>
<tr>
<td><strong>Grade (n=308)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gr 8-9</td>
<td>59</td>
<td>19.16</td>
</tr>
<tr>
<td>Gr 10-12</td>
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</tr>
<tr>
<td><strong>Number of children (n=306)</strong></td>
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<td></td>
</tr>
<tr>
<td>Below 5 children</td>
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<td>88.56</td>
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<tr>
<td>Above 6 children</td>
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</tr>
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<td><strong>Religion (n=301)</strong></td>
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<td>Non-Christians</td>
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<td>Christians</td>
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<td>Unemployed</td>
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<tr>
<td>Employed</td>
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<td><strong>Educational level father (n=302)</strong></td>
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<tr>
<td>Low</td>
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<tr>
<td>High</td>
<td>177</td>
<td>57.47</td>
</tr>
<tr>
<td><strong>Educational level mother (n=308)</strong></td>
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<td></td>
</tr>
<tr>
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<td>24.68</td>
</tr>
<tr>
<td>High</td>
<td>232</td>
<td>75.32</td>
</tr>
</tbody>
</table>
4.3.1. Prevalence rate
The prevalence of substance abuse was 30.52% (N=94) with 25.00%(N=77) using alcohol, 8.44%(N=27) of learners smoking cigarettes; 8.77% (N=26) smoking dagga and 0.65%(N=2) using other substances. Table 2 indicates substance abuse according to gender with more prevelance amongst male learners (52.12%, N=49) than female. Alcohol was the only substance that had a slightly high prevelance amongst female learners (50.56%, N=39).

<table>
<thead>
<tr>
<th>Substance use</th>
<th>M(N)</th>
<th>%</th>
<th>F (N)</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>49</td>
<td>52.13</td>
<td>45</td>
<td>47.87</td>
<td>94</td>
</tr>
<tr>
<td>Cigarette use</td>
<td>16</td>
<td>61.54</td>
<td>10</td>
<td>38.46</td>
<td>26</td>
</tr>
<tr>
<td>Alcohol use</td>
<td>38</td>
<td>49.35</td>
<td>39</td>
<td>50.65</td>
<td>77</td>
</tr>
<tr>
<td>Dagga use</td>
<td>17</td>
<td>62.96</td>
<td>10</td>
<td>37.04</td>
<td>27</td>
</tr>
<tr>
<td>Hookah pipe</td>
<td>5</td>
<td>71.43</td>
<td>2</td>
<td>28.57</td>
<td>7</td>
</tr>
<tr>
<td>Friend Use</td>
<td>91</td>
<td>51.12</td>
<td>87</td>
<td>48.88</td>
<td>178</td>
</tr>
<tr>
<td>Adult Use</td>
<td>39</td>
<td>41.05</td>
<td>56</td>
<td>58.95</td>
<td>95</td>
</tr>
<tr>
<td>Family Use</td>
<td>70</td>
<td>44.59</td>
<td>87</td>
<td>55.41</td>
<td>157</td>
</tr>
</tbody>
</table>

The abuse of substances by friends was more prevalent for males (51.12%, N=91), with family (55.41%, N=87) and adult use (58.95%, N=56) more prevalent for female learners.

4.3.2 Substance use according to Age
Substance use according to age categories indicated an increased use by the age category between the ages of 16-18 years as indicated in Table 3.

<table>
<thead>
<tr>
<th>Age category</th>
<th>Substance use</th>
<th>Cigarettes</th>
<th>Alcohol</th>
<th>Dagga</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>13-15yrs</td>
<td>16</td>
<td>17.39</td>
<td>4</td>
<td>15.38</td>
</tr>
<tr>
<td>16-18yrs</td>
<td>67</td>
<td>72.83</td>
<td>20</td>
<td>76.92</td>
</tr>
<tr>
<td>19-21yrs</td>
<td>9</td>
<td>9.78</td>
<td>2</td>
<td>7.69</td>
</tr>
</tbody>
</table>
4.3.3 Learner school activities
Most participants 50.16% (N=153) walked to school, with 33.88% (N=103) having repeated a class, 19.61% (N=60) missed school due to illness for 2-4 days and 22.44% (N=68) missed school due to other reasons shown in table 4 below.

Table 4. Learner school activities

<table>
<thead>
<tr>
<th>Participant travel to school</th>
<th>N.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brought by parents</td>
<td>14</td>
<td>4.59</td>
</tr>
<tr>
<td>Bus</td>
<td>71</td>
<td>23.28</td>
</tr>
<tr>
<td>Drive</td>
<td>30</td>
<td>9.84</td>
</tr>
<tr>
<td>Taxi</td>
<td>36</td>
<td>11.8</td>
</tr>
<tr>
<td>Train</td>
<td>1</td>
<td>0.33</td>
</tr>
<tr>
<td>Walk</td>
<td>153</td>
<td>50.16</td>
</tr>
<tr>
<td>Repeated a class</td>
<td>N.</td>
<td>%</td>
</tr>
<tr>
<td>No</td>
<td>201</td>
<td>66.12</td>
</tr>
<tr>
<td>Yes</td>
<td>103</td>
<td>33.88</td>
</tr>
<tr>
<td>Participants missed School due to Illness</td>
<td>N.</td>
<td>%</td>
</tr>
<tr>
<td>1 day</td>
<td>53</td>
<td>17.32</td>
</tr>
<tr>
<td>2-4 days</td>
<td>60</td>
<td>19.61</td>
</tr>
<tr>
<td>5-6 days</td>
<td>12</td>
<td>3.92</td>
</tr>
<tr>
<td>7 days or more</td>
<td>7</td>
<td>2.29</td>
</tr>
<tr>
<td>Participants missed school due to Other</td>
<td>N.</td>
<td>%</td>
</tr>
<tr>
<td>1 day</td>
<td>50</td>
<td>16.5</td>
</tr>
<tr>
<td>2-4 days</td>
<td>68</td>
<td>22.44</td>
</tr>
<tr>
<td>5-6 days</td>
<td>13</td>
<td>4.29</td>
</tr>
<tr>
<td>7 days</td>
<td>1</td>
<td>0.33</td>
</tr>
<tr>
<td>7 days or more</td>
<td>6</td>
<td>1.98</td>
</tr>
</tbody>
</table>
4.3.4 Learners risky experiences
Learners experienced risky behaviour due to substance abuse. The risky behaviour included, as illustrated in table 5, serious problems with their friends, having sex without a condom and getting into trouble with the police.

Table 5 Learners experience of risky behaviour

<table>
<thead>
<tr>
<th>Risky behaviour</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious problems with friends</td>
<td>26</td>
<td>33.77</td>
</tr>
<tr>
<td>Sex without a condom</td>
<td>18</td>
<td>23.38</td>
</tr>
<tr>
<td>Trouble with the police</td>
<td>3</td>
<td>3.9</td>
</tr>
</tbody>
</table>

4.5. Substance abuse

The results indicate that learners, as well as their friends and family abuse substances. Below is a presentation of the results for learners, their friends and family.

4.5.1 Learners’ substance abuse
The results indicate that 30.52% (N=94) of learners abuse substances, with alcohol use as the main substance of abuse at 25.00% (N=77), 8.44% (N=26) smoking cigarettes, and 8.77% (N=27) smoking dagga. Learners’ substance abuse patterns are illustrated in figure 3, with all substances being abused, the percentages, as well as for all the sampled learners.
4.5.1.1. Learner use age of initiation
The mean age for the initiation of smoking was 14 (std. dev. 2.05), for drinking alcohol was 14.11765 (std. dev. 2.32), for smoking dagga was 14.64706 (std. dev. 1.45) and for the use of other drugs was 15.33333 (std. dev. 1.527525). See table 8 below
Table 6 Age at which learners started using substances

<table>
<thead>
<tr>
<th>Age started using substances</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age started cigarettes</td>
<td>20</td>
<td>14</td>
<td>2.051957</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Age started drinking alcohol</td>
<td>68</td>
<td>14.11765</td>
<td>2.321409</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Age started smoking dagga</td>
<td>17</td>
<td>14.64706</td>
<td>1.455214</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Age started other drugs</td>
<td>3</td>
<td>15.33333</td>
<td>1.527525</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

Alcohol was the main substance of abuse; thus, the types of alcohol learner’s use is indicated in table 7 below, with beer being the alcohol of choice.

Table 7 Types of alcohol abused by learners

<table>
<thead>
<tr>
<th>Type of alcohol</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>257</td>
<td>83.44</td>
</tr>
<tr>
<td>Yes</td>
<td>51</td>
<td>16.56</td>
</tr>
<tr>
<td>Wine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>272</td>
<td>88.31</td>
</tr>
<tr>
<td>Yes</td>
<td>36</td>
<td>11.69</td>
</tr>
</tbody>
</table>
Table 8 below indicate the findings that learners who had last used alcohol in the last 2-1 months were 20.95% (N=22) and the learners who had last used alcohol the previous day were 19.05% (N=20).

Table 8 Days last used alcohol

<table>
<thead>
<tr>
<th>Time</th>
<th>Freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 weeks ago,</td>
<td>12</td>
<td>11.43</td>
</tr>
<tr>
<td>2-11 months ago,</td>
<td>22</td>
<td>20.95</td>
</tr>
<tr>
<td>3 weeks ago,</td>
<td>4</td>
<td>3.81</td>
</tr>
<tr>
<td>A year ago,</td>
<td>4</td>
<td>3.81</td>
</tr>
<tr>
<td>Can't remember</td>
<td>17</td>
<td>16.19</td>
</tr>
<tr>
<td>A month ago,</td>
<td>9</td>
<td>8.57</td>
</tr>
<tr>
<td>Previous days</td>
<td>20</td>
<td>19.05</td>
</tr>
<tr>
<td>A week ago,</td>
<td>17</td>
<td>16.19</td>
</tr>
</tbody>
</table>

The results also found that the majority of learners 61.05% (N=58) found it easy to access substances that they were using, with 47.22% (N=51) of learners reported having tried to quit.

4.5.2 Friend’s substance abuse patterns
Figure 4 indicates the findings related to friends of leaners who abused substances. It was found that the learner’s friends who smoked cigarettes were 33.77% (N=104), those who were drinking alcohol 45.79% (N=141), and 27.27%
(N=84) were smoking dagga. For the use of other substances, the results were 0.00% for Nyaope use, 0.32% (N=1) for the use of inhalants like hookah pipe inhalants and 1.62% (N=5) used Ecstasy.

![Diagram showing friend substance abuse patterns](image)

**Figure 4 Friends’ substance abuse patterns**

4.5.3 Family substance abuse patterns

A learners’ family use of substance was analysed, and the results are presented below. The family use of cigarettes was 32.79% (N=101), alcohol consumption was 32.47% (N=100) and dagga use was 5.84% (N=10). The results for other drugs like inhalants and ecstasy were 0.97% and 0.325 respectively. No Nyaope use was recorded.

Below is a representing family substance abuse patterns, figure 6
4.6. Participant's view on substance abuse

Learners who viewed the use of substances as bad were 76.96% (N=147) with 87.82% (N=238) of learners acknowledging that substance use affects one's health. Table 9 indicate that learners know that substance abuse affect their health and it is not good and neither acceptable even for adults.

Table 9 Learners view on substance abuse

<table>
<thead>
<tr>
<th>Is Substance Use good or bad</th>
<th>$N$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad</td>
<td>147</td>
<td>76.96</td>
</tr>
<tr>
<td>Good</td>
<td>44</td>
<td>23.04</td>
</tr>
<tr>
<td>Is Adult Use of substances acceptable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>173</td>
<td>64.55</td>
</tr>
<tr>
<td>Yes</td>
<td>95</td>
<td>35.45</td>
</tr>
<tr>
<td>Does substance abuse affect your health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>12.18</td>
</tr>
<tr>
<td>Yes</td>
<td>238</td>
<td>87.82</td>
</tr>
</tbody>
</table>
Most learners 74.30% (N=133) who do not use alcohol, indicated personal choice as the main reason, and 11.73% (N=21) cited parental guidance for their choice, as per table 10 below.

Table 10 Reason for not using substances

<table>
<thead>
<tr>
<th>Reason Not Using</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends don’t use</td>
<td>8</td>
<td>4.47</td>
</tr>
<tr>
<td>Parental guidance</td>
<td>21</td>
<td>11.73</td>
</tr>
<tr>
<td>Personal Choice</td>
<td>133</td>
<td>74.3</td>
</tr>
<tr>
<td>Religious influence</td>
<td>10</td>
<td>5.59</td>
</tr>
<tr>
<td>Sporting activities</td>
<td>7</td>
<td>3.91</td>
</tr>
</tbody>
</table>

4.7. Factors associated with substance abuse

Logistic regression was run to explore the relationship between substance abuse and a number of independent variables, and the following variable were found to be statistically significant with a $p<0.01$ age, missing school due to illness, as well as missing school due other reasons, engaging in activities during leisure time and friends. Table 11 below illustrates the results
<table>
<thead>
<tr>
<th>Variables</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.455853</td>
<td>1.09312</td>
<td>1.938953</td>
</tr>
<tr>
<td>Gender</td>
<td>0.6993188</td>
<td>0.3528612</td>
<td>1.385947</td>
</tr>
<tr>
<td>Race</td>
<td>0.9268706</td>
<td>0.3974498</td>
<td>2.161504</td>
</tr>
<tr>
<td>Employment status of parents</td>
<td>0.6121432</td>
<td>0.1934235</td>
<td>1.938112</td>
</tr>
<tr>
<td>Religion</td>
<td>1.688005</td>
<td>0.6926964</td>
<td>4.113432</td>
</tr>
<tr>
<td>Travel</td>
<td>0.5187055</td>
<td>0.2465102</td>
<td>1.091458</td>
</tr>
<tr>
<td>Miss School due to Illness</td>
<td>4.926415</td>
<td>2.364184</td>
<td>10.26551</td>
</tr>
<tr>
<td>Miss School for other reason</td>
<td>1.822569</td>
<td>0.9051242</td>
<td>3.669946</td>
</tr>
<tr>
<td>Repeat Class</td>
<td>1.070486</td>
<td>0.4842</td>
<td>2.366665</td>
</tr>
<tr>
<td>Leisure time</td>
<td>6.036122</td>
<td>2.48169</td>
<td>14.68143</td>
</tr>
<tr>
<td>Friend Use</td>
<td>4.378269</td>
<td>2.001131</td>
<td>9.579201</td>
</tr>
<tr>
<td>Family Use</td>
<td>0.8426663</td>
<td>0.4135963</td>
<td>1.716859</td>
</tr>
</tbody>
</table>
Chapter 5: Discussion, conclusions and recommendations

5.1. Introduction

The study sought to determine the prevalence of substance abuse, as well as associated factors amongst high school learners in Ennerdale. Data was collected in a school setting, from 308 learners across four public high schools.

This chapter presents the discussion relating to the study findings which where aligned to the objectives of the study, identify the study limitations, and make recommendations drawn from the study.

5.2. Prevalence rate of substance use in Ennerdale

This study confirms the high prevalence of substance abuse by high school learners in Ennerdale. The high prevalence of substance abuse in this sample raises public health concerns as substance abuse carry significant health risks (Morojele et al, 2009). This is because learners, who are in the adolescence phase (between the ages of 13 to 21), are in a period of their life that is associated with risk-taking. They experiment a lot and places high value on any reward they get from taking a particular risk, especially if they get acknowledgement from their peers (Schantz, 2012). These risks include social problems like accidents and injury, violence, crime, high risk sexual behaviour, suicide and poor relations with friends (Visser and Routledge, 2007). Scholastic risks that include repeating a class, missing school due to illness or other reasons, school dropouts and low academic aspirations (Morojele et al, 2009). Substance use especially alcohol, is associated with negative effects on school
work like absenteeism, low performance, truancy and delinquency (Chauke et al, 2015).

The sample of this study included both male and female learners and the outcome confirmed a high prevalence of substance use for both genders, although male learners were found to be more likely to use substances than their female counterparts. These findings were similar to a study conducted in Johannesburg by Magidson et al, (2017) who found a high prevalence of substance use with male use higher than female use. Furthermore, studies by Visser and Routledge (2007), and Onya et al, (2012) found that males are most twice likely to engage in substance use than females.

Although the prevalence of females using substances in this study was slightly lower compared to the males, it was almost at the same rate as male use. The same outcome was noted in a previous study by Tshitangano and Tosin (2016). The margins for substance abuse between males and females were so small that even Ghuman et al, (2012) previously indicated a need to conduct a study on the frequency and amount of consumption by females. Ramsoomar and Morojele (2012) also noted an increase in female binge drinking (>5 drinks in one sitting).

The high prevalence of substance use by the Ennerdale adolescents can be explained by the impact of peer pressure as a key reason for substance use. This is due to the desire by adolescents to fit in, and to be socially accepted by their peers because they have high value for the opinion of their peers (Van Zyl, 2013 and Seggie, 2012). Peer pressure was investigated as a factor associated with substance abuse for this study, and it was confirmed that friends use of substances was associated with substance abuse. As per fitted logistic regression (\(p<.001\)), the significance of peer pressure on substance abuse by adolescents was confirmed, and it indicated that friends use of substances influences peer use. Furthermore, Chauke et al, (2015) indicates that the use of substances by peers is done for the approval of their friends and that some peers
are made to conform to drinking by their friends. Learners seek acceptance to be part of a group hence they do what pleases their friends, and that includes using substances.

5.3. Types of substances used

The findings of this study indicated that the most commonly used substances by learners in Ennerdale included drinking alcohol, especially wine, beer and ciders, as well as smoking cigarettes and dagga; following alcohol use and the least used substances being ecstasy and inhalants. None of the sampled learners reported the use of Nyaope. The findings were in line with the SACENDU (2015) reports which showed the data of the treatment of the admissions of patients across 64 centres or programmes that they monitored. They reported that primary drugs used by patients admitted at these centres included; alcohol, cannabis, mandrax, cocaine, heroin and methamphetamine.

These findings also concur with other studies (Flisher et al, 2003; Morojele et al, 2009; Moodley et al, 2012) who found that the most commonly used substance by adolescents in South Africa include alcohol, cigarettes and dagga. The trend is similar globally, were alcohol, cigarette smoking and dagga are amongst the most common substances of choice by adolescent learners (Dida et al, 2014; Nahvizadeh et al, 2014; Gallimberti et al, 2015 and Osei-Bonsu et al, 2017).

This could possibly be because it is easier to get alcohol, cigarettes and dagga, as they are socially acceptable substances in most communities. Peltzer & Ramlagan (2007); Seggie (2012), Olumide (2014) and Manu et al, (2016) found that alcohol is the most abused drug, with ease of access being the main contributory factor. This was confirmed by most learners in Ennerdale, when they indicated that it was easy for them to access the substances they use. Mothibi (2014) also indicated that alcohol is attractive to young people because it is seen
as a sign of maturity and with the modernisation of the world markets, access to alcohol has become easier.

Alcohol includes beverages like beer, ciders, wine, spirits, vodka, whisky just to name a few, which are very attractive to the youth as confirmed by the study conducted by Osei-Bonsu et al, (2017). The popularity of alcohol may be due to the fact that it is advertised more, and promoted regularly, thus increasing its popularity. It is portrayed by the media as attractive, by using celebrities who are role models and the youth that has the expectation of joy associated with the use of substances (Gopiram and Kishore, 2014). The majority of learners are of the view that alcohol is more socially acceptable and tolerated than other substances, which is in line with other studies (Manu et al., 2016).

Most of the learners in Ennerdale had since used alcohol in the last two (2) weeks to about 6 days ago of the collecting of data, which indicated recent use. This is a concern because it implies that learners are frequent users and are at the risk of developing health-related problems due to alcohol use which include; disturbed sleep, poor appetite and mental health problems including depression, among other things (Morojele et al, 2009).

Cannabis or dagga was the second substance of choice for learners in Ennerdale. It is commonly known in South Africa as the most abused drug (SACENDU, 2009). It is extensively used by the youth in South Africa and varies in market prices based on the packaging which is anything from bags, match boxes, or sealed plastic bags, to smaller units like paper wraps, plastic bank change bags, paper envelopes and matchboxes. It is then sold at street corners, designated houses, nightclubs etc. In trauma units’ high levels of cannabis were found in patients preceding an injury and had been associated with crimes like house robbery, violence and drug related offences like possession, production and cultivation amongst others (Peltzer and Ramlagan, 2007).
Moreover, Morojele et al., (2009) found that dagga is linked to mental health conditions like schizophrenia and depression which have a negative effect and puts the adolescent at risk of developing multiple factors associated with their community, school, friendships and family, as well as personal characteristics of attitudes and personality. Dagga is also associated with the initiation of sexual activity at an early age exposing the adolescent to unwanted outcomes such as pregnancy, sexually transmitted diseases including infection with HIV (Schantz, 2012).

Cigarette smoking was also a substance of choice by learners followed by dagga for the learners at Ennerdale. Cigarettes are used by adolescents within school premises obtained from fellow learners, spaza (tuck) shops around the school as well as from drug peddlers hanging around the school (Manu et al, 2016). Also, Panday et al, (2007) indicates that due to an increase in the 1990s of cigarette use amongst adolescents, which led to smoking it was labelled as a paediatric disease/endemic, with the majority of South African adolescents having tried to smoke in their lifetime. Smoking is a major public health concern because it is associated with diseases responsible for deaths such as cancer, heart disease, and lung cancer (Nishio et al, 2018).

5.3. Age of initiation

The study supported the notion that adolescents start using substances at an early age. The learners at Ennerdale initiated the use of substances from as early as the age of 12, although the mean age for initiation on all the major substances of use in Ennerdale was 14, it confirmed that adolescence is a period when the learners often take risks and experiment. This was confirmed by previous studies that the mean age of initiation was 13-14 (Ghuman et al, 2012, and Ramsoomar and Morojele 2012).
The same findings were confirmed by studies conducted in other African countries as per the findings by Nahvizadeh et al, (2014) present the notion that in Iran, learners experimented with cigarettes at the age of 14 and alcohol at the age of 14.6, while Goopiram and Kishore (2014) found that substance use was initiated as early as the age of 10-15 years in India, which is lower than the findings in Ennerdale.

It is evident from the results and previous research findings that adolescents are at a risk of initiating substance use early in their lives no matter where they are in the globe because when Olumide et al, (2014) conducted a study among vulnerable adolescents in five cities, the mean age for alcohol initiation ranged between 14-14.1 for Ibadan and Johannesburg with cigarette use ranging from 13.1 to 14.9 for adolescents in Ibadan and Shanghai.

5.3.1. Implications of initiating substance use at an early age

Adolescence is a period of experimentation and identity formation with learners going through transition where they are in a delicate and sensitive position within society which results in picking up unhealthy habits like substance abuse. Adolescents are curious and use substances as their source of enjoyment to escape from any stress related to issues such as failing in love relationships, family problems and parental pressures (Gopiram and Kishore, 2014).

According to Ghuman et al, (2012), the long-term effects of initiating risky drinking as well as substance use during adolescence might have negative effects in the adolescent’s achievement in life, health and their general well-being as it increases the likelihood of being involved in risky sexual behaviour leading to unprotected sex, HIV vulnerability and violence. Furthermore, early initiation of alcohol is associated with future alcohol related problems, greater sexual risk-taking (i.e. unprotected sex, multiple partners, being drunk during intercourse and pregnancy), inability to quit because of the addictive nature of the substances,
chronic health issues like cancer, ischemic heart diseases and acute conditions such as violence and injuries, as well as traffic related deaths because of accidents involving motor vehicle or drunk pedestrians, culpable homicides etc. (Gallimberti et al, 2015, Ramsoomar and Morojele 2012, Tshitangano and Tosin 2015).

In addition, there is a noted progression of substance use when initiation is early in adolescence. Gallimberti et al, (2015) in Italy found that learners started experimenting with alcohol and energy drink consumption but progressed to other drugs like marijuana and stimulants as they progressed to Grade 8. Smoking also increased at this stage with the likelihood that smoking will progress into adulthood. Hence long-term addiction is a possibility due to early initiation of substance abuse.

Although the current study didn’t cover the effects of early initiation it is clear from the previous studies conducted that the implications of early substance initiation by adolescents have negative implications for the youth morbidity and mortality (Ramsoomar and Morojele, 2012). This is a concern and a public health problem that needs stricter school policies to prevent early initiation of substances by adolescent learners.

5.3.2. Academic impact for substance users
The study found that learners who were using substances had at some time missed classes to illness or other reasons. This could possibly be due to the effects of substances like hangover that makes one to feel fatigue and sick. As with other previous studies, substance use was associated with high rates of school drop outs, low academic aspirations, and performing poorly at school (Morojele et al, 2009 and Tshitangano and Tosin, 2015).
Furthermore, alcohol use was found to have negative effects on school work with absenteeism, low performance, and truancy and delinquency reported (Chauke et al, 2015). Repeating a grade was associated with recent use of alcohol and cigarette for coloured learners and alcohol use by black grade (Flisher et al, 2003), confirming that substance use has negative effects on academic performance.

5.4. Factors associated with substance abuse

When association was measured for this study and the bivariate factors were analysed a few factors were found to be statistically significant which included; gender, age, friends use, and repeating a grade. These findings were like the findings of other studies on gender as an associated factor to substance abuse which found that male learners were more likely to use substances than their female counterparts, although an increase was noted with concern of female use (Ghuman et al, 2012 and Birhanu et al, 2014).

Furthermore, it was noted by Ghuman et al, (2012) that adolescents were offered their first alcoholic drink by their friends, and learners who perceived their friends to be drinking were often twice as likely to also drink alcohol. This was supported by Birhanu et al, (2014) who indicates that learners with friends using substances were 2.14 times more likely to use.

Numerous factors account for adolescent substance use with the predominant reason involving the fact that adolescents are in a period of transition with the individuals more impulsive and reckless (Visser and Routledge, 2007). Although studies have found that age, gender, sibling use, family history of using, low parental control and lifetime tobacco use, friends’ use, stress and loneliness are some of the factors contributing to substance abuse (Baheiraei et al, 2013; Birhanu et al, 2014; Mothibi, 2014), Hemphill et al, (2011) adds and asserts that
perceived availability of drugs, poor family management, parental attitudes towards drug use and antisocial behaviour, as well as rebelliousness are some factors associated with substance abuse. Onya et al, (2012) found that age, gender, having smoked a cigarette, the number of friends using alcohol were some of the predictors of alcohol use.

This study found that learners with friends who use substances are almost 7 times more likely to use substances than leaners with friends who do not use substances (OR6.7). The findings are similar to previous findings that suggest peer pressure from friends is associated with substance use (Ghuman et al, 2012 and Van Zyl, 2013). Friends will do anything to please their friends especially the ones that they value and think highly of, they would give in to the pressure to keep the friendship or to feel that they are cool. They always need affirmation from others to feel that they belong to a group and will therefore do what others are doing not be shunned and left out of the group (Van Zyl, 2013).

Leisure time results for this study are based on the question of how learners spend their leisure time. The majority of learners in Ennerdale who were not involved in leisure activities were using substances. Although no significant association between leisure boredom and substance use was found, in a previous study conducted by Wegner et al, (2006), the results showed that leaners were 5 times more likely to use substances if they were not involved in any activities (OR 5.03).

Furthermore, Weybright et al, (2014) found that learners with healthy leisure opportunities were most likely to be busy and were not involved in substance abuse and also noted that a lack of community facilities created few options for learners to participate in leisure activities. Schools within the area also did not have facilities and equipment that provided learners with healthy leisure opportunities. It is then highly possible that these lack of opportunities leads to
engaging in leisure activities, contributing to learners’ involvement with substance abuse since they lack anything better to do.

The study confirmed that learners who use substances are 4 times more likely to miss school due to illnesses (OR 4.12). Fisher et al, (2003) indicated that although an association was found between school absenteeism and substance use by international studies, it has not been studied for the South African population. However, it was found that there was a significant association between recent use of cigarettes, alcohol and cannabis, and the number of days absent from school. This could possibly be because substance abuse may leave one feeling ill from a hangover which leads to feeling fatigue, having a headache and a stomach ache resulting in them not going to school after a day of indulging in substances. Morojele et al, (2009) indicated that substance abuse had significant health risks that include; mental and physical health problems like depression with sleep disorders, disturbance of appetite and pleasure, as well as other psychiatric disorders.

The finding of this study could possibly mean that the social environment has more of an influence on the adolescents than their family relations. Van Zyl (2013) indicates that the vulnerability of the adolescent is increased when they experience feelings of physical and psychological discomfort like stress, low self-confidence, being overwhelmed with challenges experienced in their lives, their families or even the society they live in as well as boredom. Learners have great respect for the opinion of their peers and would rather discuss their problems with someone their own age; because they are social beings and are influenced by the values, beliefs and social norms they gain through their relations with others. Adults and their peers play an important role in teaching adolescents about substance abuse hence they are vulnerable to peer pressure (Mothibi, 2014).
The school system, as a social environment, influences adolescents in the use of drugs especially with rigid rules and school systems, learners tend to rebel and develop a negative attitude towards the school system. Also, the attitude that parents and the school take when they are confronted with children with learning disabilities, emotional problems and attention deficit disorders can result in the adolescent developing a low view of their own ability (regarding self as a failure and outcast) and using substances as a means to escape (Mothibi, 2014).

Learners who were found to be using substances indicated that it was easy to get the substance they were using. This could possibly be because availability and access to substances by learners within the school environment and around the community is a social environment that enables the learner to use substances. Manu et al, (2016) found that in Mthatha learners were getting their substance supply from fellow learners within the school premises, from surrounding spaza shops, from drug peddlers over the school fence, and snack sellers at the school gates, as well as bringing their own substance to use at school. Despite the efforts of the Department of Basic Education in South Africa to use CCTV cameras at schools to provide a safe schooling environment and the implementation of bag searches, learners would still bringing substances to school to use and sell to other learners. The drug testing system at schools is not effective as some schools do not know how to use drug testing equipment (Manu et al., 2016). It is possible that more should be done in educating teachers on the use of drug testing equipment and doing more random bag and individual searches within the high schools in order to root out the substance use problems at schools.

5.5. Quitting the use of substances

This study revealed that the majority of learners tried to quit using substances on their own, while a minority of learners tried using other means to quit. The study also confirmed that a moderate number of learners indicated that they needed
assistance to quit the use of substances. This is in line with the study conducted by Tshitangano and Tosin (2016) who found that some of the learners tried to quit and stop using substances but failed. This could be due to the fact that adolescents are deliberately targeted by advertisers making it difficult for them to quit as the benefits are enhanced through advertising (Seggie, 2012).

The study also confirmed that most learners are aware that substance abuse is bad for one’s health and that it can affects the health of the user. However, a small number of the learners using substances said it did not affect their health. This possibly means that these learners have a positive view of substance use and resulting in the belief that their health will not be affected. This was a finding in a previous study that suggested the learners have a positive and favourable view to substance use as they expect positive outcomes from use like the short-term enjoyment they get when they are drunk or high (Morojele et al, 2009). This finding indicates that it is possible that while some leaners are aware of the effects of substance use on their health and that the use of substances is bad for their well-being, there is still a need for more education and awareness campaigns to reduce the numbers of those finding substance abuse acceptable to a much lower margin.

It was the finding of this study that most of the learners regarded substance use by adults who are above 35 years of age as unacceptable while few learners thought it was acceptable. This is possibly because adolescents look up to adults as their role models and will try emulating what adults are doing, therefore, if they see adults drinking and smoking they might think that it is a cool thing to do. Morojele et al, (2009) indicates that when adolescents are exposed to public drinking and drug use or where it is the societal norm to engage in substance use activities by the community then adolescent drunkenness is likely to be present within that society.
5.6. Availability of rehab facilities, access and costs

According to the South African National Census carried out in 2011, Ennerdale has a population of close to 71 815 people with a high unemployment rate amongst the youth, minimal access to state resources and limited services delivery. It has three (3) Primary Health Care centres in Extension 9, Extension 8 and Mid-Ennerdale. There is a hospital in the neighbouring area of Lenasia South that offers basic health care services, serious and critical referrals are made to Chris Hani Baragwaneth state hospital shared with the population of Soweto. For those who can afford private healthcare there is the option to use Daxina Medical Clinic and Lenmed Private Clinic.

Ennerdale does not have rehabilitation facilities besides an NGO called Ladies of Hope that volunteers its services to assist the youth with combating substance abuse. The NGO is self-funded and caters to 20 learners in a workshop session per month at schools, and 10 learners who attend individual dialogues at the centre monthly. Most rehabilitation facilities are not funded by the government; thus, they charge for the use of their facilities supported by medical aid membership. For unemployed people who are not members of a medical aid, accessing these facilities is not an option, meaning that receiving the help required to quit using substances is not possible.

5.7. Social implications of substance use

This study supports the notion that learners have experienced some negative consequences due to the use of substances. These ranged from having sex and regretting it the next day, being hospitalised, injury, physical fights, serious problems with friends, trouble with the police, robbing other people and having sex without a condom. These are the risky behaviours that were previously confirmed by Schantz, 2012 in another study as being common in adolescents, due to the fact that they are at a stage where they are prone to taking risks if they
think that it will reward them with acceptance by peers even though substance abuse is not good for their health. Furthermore, it is also due to their incapacity to make judgement as they are still developing their own self-control (Schantz, 2012). Morojele et al, (2009) also found that these social problems are experienced by adolescents due to the use of substances.

The study found that the majority of learners who do not use substances cited personal choice as the reason for not using substances. This could be due to their religious beliefs, because the majority were of the Christian religion and a few were of the African religion. This might, furthermore mean that religion protected them from substance abuse because religious activities tend to lessen the use of alcohol and drunkenness (Morojele et al, 2013). There was a few who cited parental guidance as the reason for not using substances implying that they might be spending quality time with their parents and feel that they care about them which is a protective factor against substance abuse (Morojele et al, 2009).

5.8. Challenge of social acceptability of substance abuse

The learners of Ennerdale are part of the South Africa youth who are targeted by the marketing strategies that promotes the use of substances. The alcohol industry promotes alcoholic beverages at sport events and use targeted means such as happy hours for females. In addition, the adverts associate alcohol with being successful and popular (Ramsoomar and Morojele 2012). Adolescents are possibly exposed to them and a community with drinking adults making it acceptable for them to indulge in substances.

The antisocial behaviour within the community to substance use with adults selling and drinking or smoking cigarette with learners contributes to adolescent substance abuse (Morojele et al, 2009).
Van Zyl (2003) further confirmed that poverty and unemployment was an indicator of substance use by adolescents as a means to cope with the daily pressures brought on by poverty. Adults could use drugs in an effort to cope and adolescents who are exposed to these activities by the adults will then emulate and also start using drugs to cope with stressors they might experience, thinking it is an acceptable thing to do. Furthermore, the number of taverns found within the community allowing children below the age of 18 to purchase alcohol without any identification could possibly lead to ease of accessibility and thus make it socially acceptable for learners to use substances.

5.9. Study limitations

The data collection method that was used was dependent on self-disclosure of substance abuse by learners and the accuracy with which the learners complete the questionnaire. Since matters related to substance abuse are considered confidential, the likelihood of the findings being generalised was reduced.

5.10. Conclusion

The results of this study indicate that substance abuse amongst high school learners in Ennerdale is prevalent and may contribute to risky behaviour by learners. The study found that missing school due to illness, friends use and engaging in activities during leisure time were factors associated with substance abuse amongst leaners. Substance abuse by the learners has negative implications, with leaners having experienced risky social behaviour like injury, physical fights, and sex without a condom amongst others which can predispose them to lifelong health issues like HIV infections.

5.11. Recommendations

Based on the findings of this study the department of education should
• Strengthen the prevention programmes they have in place through vigorous campaigns on the harmful effects of substance abuse, to reduce the use by learners in high schools.

• Ban substance related adverts at sporting events where minors are part of the viewership.

The findings of this study needs further research to be conducted on the protective factors within the community that enables other learners not to use substances.
Reference List


National Strategy for the prevention and management of alcohol and drug use amongst learners in schools available at:


Appendixes

Appendix A: Sefako Makgato Health Science University Approval Letter

![Image of approval letter]

06 April 2017

MRS D. Mhale
Department of Public Health
P.O. Box 215
Medunsa, 0204

MEETING: 03/02/17

SMUREC Ethics Reference Number: SMUREC/073/2017: PG

The new Application received on 17 February 2017, was reviewed by members of Sefako Makgato University Research Ethics Committee 02 March 2017 and was approved on 06 April 2017.

Title: Substance abuse amongst high school learners in Emfreda, Gaialseng Provinces

Researcher: MRS D. Mhale
Supervisor: Proff. Molweni
Department: Public Health
School: Health Care Sciences
Degree: MPH

Please note the following information about your approved research protocol:

Protocol Approval Period: 06 April 2017 – 06 April 2018

Please remember to use your protocol number (SMUREC/073/2017: PG) on any documents or correspondence with the REC concerning your research protocol.

Please note that the REC has the prerogative and authority to ask further questions; seek additional information, require further modification, or monitor the conduct of your research and the consent process.

After Ethical Review: Please note a template of the progress report is obtainable in the Research Office and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit. Translation of the consent document in the language applicable to the study participants should be submitted.

International Organisation: [ERG/00368/01]; Institutional Review Board [SREC/001/2015/01]; Ethics Committee [SREC/001/2015/01]; Benefits to Participants [Beneficial]; Federal Wide Assurance [FWA00000342]; Expired date: 31 August 2017 and NHREC No: REC 2004/003

Sincerely,

[Signature]

DEPUTY CHAIRPERSON SMUREC
Appendix B: Approval from the Gauteng Department of Education

<table>
<thead>
<tr>
<th>GDE RESEARCH APPROVAL LETTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 23 May 2017</td>
</tr>
<tr>
<td>Validity of Research Approval: 06 February 2017 – 29 September 2017</td>
</tr>
<tr>
<td>2017/114</td>
</tr>
<tr>
<td>Name of Researcher: Mohale D.</td>
</tr>
<tr>
<td>Address of Researcher: No.2 Athena Street</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Telephone Number: 011 855 1887 083 673 5512</td>
</tr>
<tr>
<td>Email address: <a href="mailto:Debra_Mohale@embanet.com">Debra_Mohale@embanet.com</a> <a href="mailto:debram@medscheme.co.za">debram@medscheme.co.za</a></td>
</tr>
<tr>
<td>Research Topic: Substance abuse amongst high school learners in Ennerdale, Gauteng Province</td>
</tr>
<tr>
<td>Number and type of schools: Four Secondary Schools</td>
</tr>
<tr>
<td>Districts/DHO: Johannesburg South</td>
</tr>
</tbody>
</table>

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the schools and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be violated:

- Making education a societal priority

Office of the Director; Education Research and Knowledge Management
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshebe@gauteng.gov.za
Website: www.education.gpg.gov.za
Appendix C: Requesting permission from the District office of Education

To the Manager
District Office of Education
My name is Debrah Mohale and as part of my degree in Public Health, I am conducting a study titled SUBSTANCE ABUSE AMONGST HIGH SCHOOL LEARNERS IN ENNERDALE, GAUTENG PROVINCE. The purpose of this study is to identify any factors that may put high school learners at risk regarding the use of substances, and data collection will occur at the school premises of the identified schools in this district, and data will be collected among learners.

Upon granting permission for this study to be conducted in high schools in this district, the management of the individual schools will be contacted to request permission, as well as to make arrangements regarding data collection logistics. Informed consent will be sought from the parents of the learners before they participate in the study.

Upon completion of the study, your district will be provided with a report that highlights main findings of the study, as well as recommendations from the results.

If you have any questions feel free to contact me on 083 673 5512 or my supervisor at the Sefako Makgato Health Sciences University, Prof Mokwena, at 012 521 4613.

Sincerely
Debrah Mohale
Appendix D: Information pamphlet to parents

Your child is a learner at …..High school and we are conducting a study about substance abuse amongst high school learners in the schools in this area. The purpose of this study is to identify if there are any factors that may put high school learners at risk regarding the use of substances. The results of the study will provide us with information that can assist us in identifying such risks and possible develop a program to counteract such risks. The study is voluntary and confidential with no monetary benefit attached to it. It is purely for educational purposes.

The study will be conducted at school and the learners will participate by answering questions on paper about substance abuse. The study will be anonymous, and no learner details will be used in the study.

We have obtained permission from the District Office of Education, as well as the management of the school, and hereby request that you allow your child to participate in the study.

Attached is a form which we ask you to fill and sign, as an indication that you give permission for your child to participate in the study.
Informed Consent form for parents

SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY;
ENGLISH CONSENT FORM

Statement concerning participation in a Research Project

Name of Project: SUBSTANCE ABUSE AMONGST HIGH SCHOOL LEARNERS IN ENNERDALE, GAUTENG PROVINCE
Researcher: Ms Debrah Mohale
Supervisor: Prof Kebogile Mokwena

As a parent of a learner at Ennerdale High school (Tech), I have read the information provided about the proposed study, and the aims and objectives of the proposed study are clear to me. I have not been pressurized to participate in any way.

I understand that the participation of my child in this study is completely voluntary and that he/she may withdraw from it at any time and without supplying reasons.
I understand that the study has been approved by the Research and Ethics Committee of Sefako Makgatho Health Sciences University (SMUREC). I am aware that the results of this study material may be used in scientific publications which will be electronically available throughout the world. I consent to this provided that my child’s name is not revealed.
I hereby give consent for my child to participate in the study.

Name of parent/guardian    Signature of parent/guardian

Statement by the Researcher

I provided written information to the parents of the learners regarding this study.
I agree to answer any future questions concerning the study as best as I am able.
I will adhere to the approved protocol.

_________________________    ______________________
Name of Researcher          Signature

Date
Appendix F : Data Collection Tool

Data collection tool
Dear learner

The purpose of the study is to collect information on substance abuse amongst learners in High Schools to identify and understand why learners use substances.

Your participation is by choice and no personal details will be required to complete the tool.

You have the right not to answer any questions that you are not comfortable with.

The tool is self-administered and you will complete it on your own without assistance from the researcher. It will take about 30-45 minutes to complete.

By completing this questionnaire, I agree to participate in this study. I do this knowing that my identity will remain confidential and anonymous. I am aware that the information obtained will be used for scientific purposes.

Socio-demographic data:

1. What is your gender?

   Male  
   Female

2. How old are you?

   

3. What is your race?

4. How many children are you at home?

5. In which grade are you?

<table>
<thead>
<tr>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

6. What is the employment status of your parents/guardians? (Please tick only the relevant one)

<table>
<thead>
<tr>
<th>Both employed</th>
<th>One employed</th>
<th>Both unemployed</th>
<th>Self-employed</th>
<th>Other specify</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. What is the highest level of schooling your father completed?

<table>
<thead>
<tr>
<th>No formal schooling</th>
<th>Completed primary education</th>
<th>Completed secondary education</th>
<th>Completed college or university</th>
<th>Don't know</th>
</tr>
</thead>
</table>

8. What is the highest level of schooling your mother completed?

<table>
<thead>
<tr>
<th>No formal schooling</th>
<th>Completed primary education</th>
<th>Completed secondary education</th>
<th>Completed college or university</th>
<th>Don't know</th>
</tr>
</thead>
</table>

9. What is your religious affiliation?

<table>
<thead>
<tr>
<th>Christian</th>
<th>African traditional</th>
<th>Muslim</th>
<th>Hindu</th>
<th>Other</th>
<th>None</th>
</tr>
</thead>
</table>

10. How do you travel to school?

<table>
<thead>
<tr>
<th>Walk</th>
<th>Taxi</th>
<th>Bus</th>
<th>Bicycle</th>
<th>Drive</th>
<th>Brought by parent(s)</th>
</tr>
</thead>
</table>

School and everyday activities:
11.

a) During the last three months, how many days have you missed school because of illness?

☐ None ☐ 1 day ☐ 2-4 days ☐ 5-6 days ☐ 7 days or more

b) During the last three months, how many days have you missed school because of reasons other than illness?

☐ None ☐ 1 day ☐ 2-4 days ☐ 5-6 days ☐ 7 days or more

12. Have you ever repeated a class?

☐ Yes ☐ No

13. How do you usually spend your leisure time? (Tick only the one that is applicable to you)
   a. Frequently participate in sports, athletics, soccer or exercising ☐
   b. Go out in the evening (to a disco, cafe, party etc.)...
   c. Other hobbies (play an instrument, sing, draw, write).
   d. Go around with friends to town, streets, parks etc. just for fun ☐
   e. Use the Internet for leisure activities (chats, music, games, etc.) ☐
14. During the last 12 months have you experienced any of the following? (Tick what applies to you):

<table>
<thead>
<tr>
<th>Incident</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any type of injury</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious problems with friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robbed by others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble with police</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have sex without condom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have sex and regretted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following questions are on Substance use:

15. Do any of your friends use the following (indicate by ticking the relevant box):

- Smoke cigarettes
- Drink alcohol
- Smoke nyaope
- Smoke daga
- Use ecstasy
- Use inhalants
- None of my friends use substances

16. Do any of your family members living with you do the following (tick the relevant box):

- Smoke cigarettes
- Drink alcohol
- Smoke nyaope
- Smoke daga
<table>
<thead>
<tr>
<th>Use ecstasy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use inhalants</td>
<td></td>
</tr>
<tr>
<td>Use other substances (indicate)</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

17. Do you use any of the listed? (tick all substances you are currently using from the below list):

<table>
<thead>
<tr>
<th>I don't use any substances</th>
<th>Smoke cigarettes</th>
<th>Drink alcohol</th>
<th>Smoke nyacpe</th>
<th>Smoke dagga</th>
<th>Using other substances</th>
</tr>
</thead>
</table>

NB: Please skip question 18-26 if you do not use any substances, and answer only questions 28-30. If you ticked a substance from the above list please answer questions 18-29.
18. How old were you when you started using substances (indicate by putting the age in years in the specific box below):

<table>
<thead>
<tr>
<th>Smoking cigarettes</th>
<th>Drinking alcohol</th>
<th>Smoking nynape</th>
<th>Smoking dagga</th>
</tr>
</thead>
</table>

19. If using any other substance than the above mentioned, please indicate what you are using and the age you started using it:

<table>
<thead>
<tr>
<th>Substance using</th>
<th>Age started</th>
</tr>
</thead>
</table>

20. How difficult do you think it would be for you to get the substance you are using if you wanted it?

<table>
<thead>
<tr>
<th>Very difficult</th>
<th>Difficult</th>
<th>Fairly easy</th>
<th>Very easy</th>
<th>Not sure</th>
</tr>
</thead>
</table>

21. Tick any alcoholic beverages that you are using, whether frequently or sometimes, from the list below:

<table>
<thead>
<tr>
<th>I don't drink alcohol</th>
<th>Beer</th>
<th>Cider</th>
<th>Wine</th>
<th>Other (specify)</th>
</tr>
</thead>
</table>

22. How difficult do you think it would be for you to get the following alcoholic beverages if you wanted?
<table>
<thead>
<tr>
<th>Alcoholic beverage</th>
<th>Very difficult</th>
<th>Difficult</th>
<th>Fairly Easy</th>
<th>Very Easy</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Cider</td>
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</tr>
<tr>
<td>Wine</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

23. When was the last day you drank alcohol? (Please tick only one)

- Previous 6 days
- A week ago
- 2 weeks ago
- 3 weeks ago
- A month ago
- Between 2 and 11 months ago
- A year ago
- I can’t remember

24. Have you ever tried quitting using or drinking alcohol substances?

- Yes
- No

25. If yes, which method did you try?

<table>
<thead>
<tr>
<th>Tried professional rehabilitation</th>
<th>Tried quitting by myself</th>
<th>Tried quitting using faith-based sources</th>
<th>Other (specify)</th>
</tr>
</thead>
</table>
26. Will you be able to accept help/assistance to quit substances if it was offered?

Yes
No

27. Tick one that reflects your view on the following: Using substances is

Good
Bad

28. Tick one that reflects your view on the following: It is ok to use substances when you are above age 35

Yes
No

29. Tick one that reflects your view on the following: Using substances affects your health?

Yes
No

30. Tick one that reflects your view on the following: The reason I do not use substances is due to… (please tick what is relevant to you):

Personal choice
Parental guidance
My friends do not use substances
<table>
<thead>
<tr>
<th>Religious influence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement in other sporting activities</td>
<td></td>
</tr>
</tbody>
</table>

Thank you very much for your participation it is very much appreciated!