Chapter1

1.1. Introduction.

Today, drug use amongst school learners is recognized as one of the greatest health and social problems facing post-apartheid South Africa (Moleko & Visser, 1999; Parry & Bennets, 1998). It is estimated that millions of South African school learners use alcohol, tobacco, cannabis (dagga), solvents (like petrol and glue) and other drugs (Parry & Bennets, 1998). The use of alcohol and other drugs amongst school learners is common, and unless active steps are taken, drug use is likely to continue impacting negatively on the socio-economic and health development of this country. Young school learners are the future leaders, yet many are destroying their future through alcohol and other drug use. It is well-known that school learners who use alcohol and other drugs usually present with the following signs at school: poor class attendance, loss of interest in learning, drop in academic performance, inattentive in class and missing deadlines for home work (Gonet, 1994). There are many reasons or factors influencing school learners' use of alcohol and other drugs. School learners usually experience direct peer pressure to use alcohol and other drugs (Peltzer & Phaswana, 2000). The use of alcohol and other drugs is therefore seen as "cool, glamorous, and exciting" (Edmonds & Wilcocks, 2000). School learners also use alcohol and other drugs for seeking pleasure, fun/enjoyment, to cope with problems, to satisfy curiosity, and to gain social acceptance (Edmonds & Wilcocks, 2000; Rocha-Silva, De Miranda & Erasmus, 1996). These factors are also mediated by biological, psychological, social and environmental influences.

1.2. **The aims of study.**

This study aims to investigate:

- The prevalence of alcohol and other drug use amongst school learners in Alexandra Township.
- The gender differences in alcohol and other drug use amongst school learners in Alexandra Township.

1.3. **Research Questions**

- What is the prevalence of alcohol and drug use amongst school learners in Alexandra Township?
- Is the use of alcohol and other drug use more prevalent among males than females (or vice versa) amongst school learners in Alexandra Township?

Chapter 2

2.1. Rationale.

The findings of this study will be useful because there is paucity of national surveys aimed at determining the nature and the extent of alcohol and other drug use among the youth in South Africa (Rocha-Silva, 1998; SACENDU, 2000). The only large national survey was conducted in 1996 by Rocha-Silva, De Miranda and Erasmus to determine the nature and extent of alcohol, tobacco and drug use among black youth. Today much of the existing survey data is limited in its focus. For example, many surveys by South African Community of Epidemiology Network on Drug Use (SACENDU) are only limited to treatment centres. SACENDU is a project co-ordinated by the Medical Research Council of South Africa. Since, 1996, this project has drawn on figures and qualitative data provided by a range of agencies, including treatment centres, the South African police, specialist researchers and hospitals. The surveys exclude many school learners who do have access to these centres. The annual national surveys are needed to provide data on the prevalence of alcohol and other drugs use amongst school learners in South Africa. As in the U.S., national surveys are conducted on yearly basis to determine the prevalence of drug and alcohol use amongst school learners (Jung, 2001). These surveys employ large and random probability samples to measure drug, alcohol, and cigarette use and related attitudes among adolescent students (Jung, 2001). However, in South Africa, surveys employ only small and unrepresentative samples to measure the prevalence of alcohol and other drug use among school learners. The example of this is a series surveys conducted by Flisher, Parry, Evans, Lombard, and Mueller (1998), which

included only Cape Town school learners in Grade 8 and 11 to determine the prevalence rates of alcohol, tobacco and other drug use. Moreover, national statistics are also not available on the national trends in alcohol and other drug use amongst school learners in South Africa. Currently, the best source of information is only the South African Epidemiology Network on Drug Use (SACENDU), Therefore, the relevance of the current study is to add a valuable body of knowledge that has been established by local research institution such as SACENDU in measuring the prevalence of alcohol and other drugs use amongst school learners in South Africa. Data on the prevalence of alcohol and other drugs use is also necessary to reveal the extent of the problem and help guide the implementation of effective substance abuse policies and interventions aimed at young school learners (Parry, *et.al*, 2004).

Furthermore, the rationale of the study is also to investigate the types of drugs used amongst school learners in Alexandra Township. Those involved in drug awareness campaigns need to be aware of the types of drugs used by school learners in order to develop effective prevention strategies. It is also important to identify the changing patterns in alcohol and other drug use amongst school learners. Researchers working in the field of drug prevention need to be familiar with new names of drugs in the market, for example, street names by which the drugs are referred and other words associated with them. It appears that the types of drugs used by school learners differ in terms of the geographical areas. This also depends on the cost and availability of the drug. Therefore, the relevance of the study is to investigate the most commonly used substance amongst school learners in Alexandra Township.

Moreover, measuring patterns of use of different substances will also provide important data about the scope of drug use amongst school learners in Alexandra Township. A thorough description of the frequency and prevalence of substance use by school learners is important. The relevance of the study is therefore to reveal drug use patterns amongst school learners in Alexandra Township. The results will also tell us about the drug use patterns over the past month and last year. It is important to know this information, as this may help those involved in prevention programmes to design effective and appropriate primary prevention programmes.

Finally, the relevance of the study is also to investigate the age at which many school learners start using alcohol and other drugs. Moleko and Visser (1999) mentioned that children as young as 10 years use drugs. This data will be useful for those involved in prevention strategies to extend their interventions among primary school learners as it appears that the use of substances starts at an early age

Chapter3: Literature review

3.1. Definitions of concepts.

3.1. 1. Drugs

A drug is "any substance that affects or changes the function of the living tissue in such a way as to produce emotional and behavioural changes" (Gonet, 1994, p.13). The term drug includes alcohol, nicotine, caffeine, and over-the-counter medication such as cold, sleep, painkillers, and illegal drugs such as LSD, ecstasy, cocaine, crack, marijuana, and heroin (Stevens-Smith & Smith, 1998). It is however important to note that all of these drugs are psychoactive (Stevens-Smith & Smith, 1998). Such substances- legal and illegal influence or alter the states of the mind; they affect individual's moods, emotions, feelings, and thinking processes (Fields, 2001).

3.1.2. Drug use, abuse and dependence.

Differentiating between the adolescent's drug use, abuse and dependence is not always easy. In this study, the term drug use means having tried a drug at some time in one's life without the individual developing a specific drug-use pattern (Edmonds & Wilcocks, 2001; Hanson & Venturelli, 1998; Stevens-Smith & Smith, 1998).

For the purpose of the study the term 'use' does not mean once-off use, it refers to individuals who use alcohol and other drugs on a regular basis. Literature in the field

often distinguishes these types of use as experimental versus social or regular use.

Experimental use recognizes that many young school learners will try a drug once or twice, decide they do not like its effects, and discontinue its use. Many young school learners experiment with a variety of drugs and never get beyond this phase (Gonet, 1994). They drift in and out of experimentation but never settle into a specific drug-using pattern.

The term social or occasional use connotes going to a party and drinking or taking illicit drugs for the mood-altering effects – that is to get high (Gonet, 1994). Some school learners like the way it feels and decide to use it again. As a result, some progresses into daily preoccupation to use drugs and this affects their school activities (Gonet, 1994; Hanson & Venturelli, 1998).

The daily preoccupation with drugs progresses into dependence or addiction, which includes difficulty to face a day without them and unsuccessful efforts to cut down or control their dependence.

3.1.3. Drug abuse

The term “abuse” indicates that a person’s use patterns put him or her at risk for life dysfunction, and often is to indicate drug use problems that have developed into disease of chemical dependency (Gonet, 1994). According to Diagnostic and statistical Manual

of Mental Disorders (DSM-IV-TR, 2000) substance abuse is a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one or more of the following during the 12-month period:

- "Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g. repeated absences or poor work performance related to substance use); Substance related absences, suspensions or expulsions from school; neglect of children or household;
- Recurrent substance use in situations that are physically hazardous (e.g. driving an automobile or operation of a machine when impaired by substance use);
- Recurrent substance-related legal problems (e.g. arrests for substance-related disorderly conduct) and ;
- Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of substance (e.g. arguments with spouse, physical fights)" (APA, 2000: p 383-384)

3.1.4. Drug dependence.

The DSM-IV (APA, 2000), the primary diagnostic text for psychiatrists and psychologists, defines substance abuse and dependency with varying criteria for each category. This means that drug abuse must be distinguished from drug dependence. Drug dependence is a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

- “Tolerance, as defined by either of the following:

    (a) A need for markedly increased amounts of the substance to achieve intoxication or desired effect with continued use of the same amount of the substance);

- Withdrawal, as manifested by either of the following:

    (a) The characteristic withdrawal syndrome for the substance (refer to criteria A and B of the criteria sets for withdrawal from the specific substances;

    (b) The same substance is taken to relieve or avoid withdrawal symptoms the substance is often taken in larger amounts or over longer period than was intended;

- There is persistent desire or unsuccessful efforts to cut down or control substance use;
- A great deal of time is spent in activities necessary to obtain substance; important social, occupational, or recreational activities are given up or reduced because of substance use;
- The substance use is continued despite knowledge of having persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance; specify if: psychological or physiological dependence.)”(APA, 2000, pp 385-386)

It is of interest to note that the DSM-IV (1994) further divides dependence as “with physiological dependence” or “without physiological dependence”. This distinction is an

addition to the criteria for dependence. The psychological dependence occurs when the individual feels that he/she cannot cope with life unless they take the drug/s of their choice, which eventually are taken to attain and maintain a sense of normality (Gonet, 1994).

Physiological dependence occurs when the body builds up a tolerance to the chemical and manages to maintain its equilibrium at high doses, which necessitates further increases of amount needed to achieve an altered state (Edmonds & Wilcocks, 2000). The presence of high physiological tolerance is accompanied by withdrawal symptoms if the intake of the chemical ceases (Edmonds & Wilcocks, 2000).

The withdrawal symptoms include nausea, vomiting, irritability, sleeplessness, depression, craving and frustration. These symptoms are so adverse that drug users will be encouraged to resume the drug habit. As a result, it is recommended that individuals be referred for rehabilitation to deal with their drug dependency or addiction. Currently, SACENDU (2004) has reported that the average age of those seeking treatment is getting younger and younger each year.

In summary, this chapter has reviewed the distinction between drug use, abuse and dependence. It is clear that there is a difference between these concepts, although drawing a line between them is not always easy.

3.1.4. Drugs identified in the study.

This study identified most commonly used drugs as alcohol, nicotine, marijuana, ecstasy, LSD, cocaine, mandrax, heroin, and crack. These are generally popular drugs amongst school learners in South Africa (Flisher, *et al*, 1998; Edmonds & Wilcocks, 2000). To understand drugs and why school learners use them, we also need to know their categories, street names, method of use and major side effects.

3.4.1. Alcohol

The word alcohol refers to beverages such as beer, wine and spirits (Parry & Bennets, 1998). Alcohol falls into drug class of sedative/hypnotic and is a central nervous system (CNS) depressant. This means it lowers the activity of the CNS (Hanson & Venturelli, 1998; Stevens-Smith & Smith, 1998). It is reported that alcohol is the most widely used drug in the world because of its relaxing effects. It is known to relieve stress and anxiety and induce sleep that appeal to many people, particularly those who are struggling with emotional problems (Hanson & Venturelli, 1998; Stevens-Smith & Smith, 1998).

Alcohol is popularly known as 'booze' and method of ingestion is oral. Although many consider the effects of alcohol enjoyable and acceptable adjunct to such celebrations as parties, birthdays and weddings, the adverse physiological impact of this drug is extensive and its effects are associated with more than 50% of hospital admissions each year in South Africa (Parry & Bennets, 1998). It is also estimated that 80% of diseases in

the world such as Foetal alcohol syndrome (FAS), cirrhosis of the liver, head injuries, hypertension, heart difficulties, kidney failures, korsakoff syndrome, personality deterioration, mental disorders, brain damages and motor-vehicle accidents are alcohol-related (Parry & Bennets, 1998).

3.4.2. Tobacco/nicotine

Nicotine is considered as stimulant that acts on the Central Nervous system (CNS) by increasing blood pressure, alertness, excitation, euphoria, and increased heart rate (Hanson & Venturelli, 1998).

The method of ingestion is smoking. The majority of adolescents continue to experiment with cigarettes despite the Tobacco Control Amendment Act of 1999, which legislates compulsory warning on cigarette packs and restrictions on smoking in public places (Reddy, 2003). Today, smoking still remains the chief single cause of mouth cancer, lung cancer, cardiovascular disease and other smoking-related illness (Reddy, Meyer-Weitz & Yach, 1996). The World Health Organization (WHO) has estimated that in 2020 about 10 million deaths per year would be caused by smoking (WHO, 1995, cited in Reddy et. al., 1996). Smoking is also associated with various complications during pregnancy. Infants born to smoking mothers tend to have a lower-than-normal weight at birth, which is dangerous to their health (Reddy, 2003).

3.4.3. Cannabis

Cannabis consists of the dried leaves and flowers of the plant *cannabis sativa*. The main psychoactive ingredient of dagga is Delta-9-Tetrahydro-cannabinol (THC) (Stevens-Smith, et.al., 1998). Dagga is a central nervous system hallucinogen.

Common street names for Cannabis are marijuana, zol, weed, grass, boom and ganja. Method of ingestion is usually smoked in the form of joints or pipes. According to Edmonds and Wilcocks (2000) dagga can also be brewed into a tea and drunk or baked into a cake or cookies and eaten.

It is reported that majority of heavy users of cannabis have a high incidence of respiratory problems such as laryngitis, pharyngitis, bronchitis, cough, hoarseness, and dry throat (Stevens-Smith *et al*., 1998). The psychological consequences associated with cannabis abuse include impaired memory capacity, anxiety, brain-cell damages, disorientation and hallucinations (DSM-IV, 1994). It is also reported that cannabis interferes with sexual performance and damages the chromosomes of the germ cells in males or females, or adversely damage the reproductive system (low sperm cell count in males, menstrual irregularities in females) (Hanson & Venturelli, 1998; Stevens-Smith & Smith, 1998).

3. 4.4. Ecstasy

Ecstasy is a drug that has been closely connected to “rave culture” , which is popular dance music (Taljaard, 1996, cited in Borkum, 1999). With the birth of the rave scene in

the late eighties, the use of ecstasy escalated as the “ravers” drug choice and became one of the favoured substances of abuse (Zervogians, Wiechers & Bester, 2003). Ecstasy is a central nervous system stimulant, which gives young people energy or stamina to have fun and dance all night. But once ecstasy has been metabolised, users are often left feeling depressed, fatigued and sometimes confused (Edmonds & Wilcocks, 2000).

Ecstasy is popularly known as ‘E’ and method of ingestion is oral in pill and sometimes capsule form.

The stimulant effects of ecstasy lead to transient side-effects that include an increased heart rate, raised blood pressure, nausea, dry mouth, decreased appetite, jaw chewing, depression, blood clotting disorder, general muscle pain, dehydration, and heart stroke (Myers & Parry, 2002). It is also reported that high doses of ecstasy can cause paranoid psychosis, hallucinations, heart attacks, panic attacks and seizures (Zervogians *et al*. 2003). The study conducted by Zervogiannis et.al (2003) amongst young ecstasy users in Durban clubs reported the following physiological and psychological effects of ecstasy: an accelerated heartbeat (70%), jaw clenching (64%), nausea (58%), sleeplessness (56%), dehydration (32%), a desire to urinate, but unable do to so (24%), vomiting (18%) and visual hallucinations (14%).

3.4.5. Cocaine

Cocaine is a stimulant that increases the activity of the CNS (Stevens-Smith, *et al,* 1998). It causes sudden increases in heart rate, making people feel alert and powerful, and their

thinking seems better and clearer than usual (Stevens-Smith, *et al*., 1998; Hanson, et.al., 1998). Common street names for cocaine are snow, coke and big c.

Cocaine is a white powder commonly taken by snorting a small amount into a nose, where it is absorbed through the lining. Some cocaine users inject the drug into their vein to produce rapid and powerful effects (Emmett & Nice, 1998).

Emmett and Nice (1998) observed that with the use of injected intravenous, there is a high risk of infections, such as hepatitis, syphilis, and HIV/AIDS due to sharing of unclean needles. The general side effects associated with cocaine abuse include: weight loss; respiratory disease, liver cell damage; cocaine psychosis characterized by severe paranoia, aggressiveness, and suicidal behaviour (SANCA, 1998, cited in Borkum, 1999).

3.4.6. Crack

Crack is manufactured by altering cocaine powder and creating a crystal (rock), which has a much higher level of purity (Edmonds & Wilcocks, 2000). Crack is popularly known as rock.

Crack cocaine is usually smoked in a small pipe. Its vapour is inhaled by the user after heat has been applied beneath the crystal contained in the pipe (Edmonds & Wilcocks, 2000).

The side effects of crack include: respiratory illness, stroke, heart failure, acute depression and paranoia (Ganeri, 1997, cited in Borkum, 1999).

3.4.7. LSD (Lysergic Acid Diethylamide)

LSD is made from ergot, fungus that grows on rye and wheat. LSD is a CNS hallucinogen, which causes distortions in thinking and feeling. These distortions include hallucinations, during which a person sees, hears, smells or feels things that do not exist (Smith et.al, 1998). LSD is popularly known as acid and method of ingestion is oral. It is taken as tiny tablets or in liquid form, which has been placed on a sugar lump (Edmonds, *et al*, 2000).

The physiological effects of LSD include brain and neurological damages (Hanson *et al*, 1998). This is due to the passage of LSD through the blood-brain barrier, affecting the neural activity. LSD affects the brain system; its psychological effects are hallucinations, depression, anxiety, illusions, and accidents due to perpetual distortions (Edmonds *et al*, 2000).

3.4.8. Mandrax

Mandrax is a CNS depressant, which it used to relieve stress, anxiety and coping with emotional problems (Hanson & Venturelli, 1998) In South Africa, mandrax was available on prescription as a sleeping tablet until it was banned in the 1970’s due to it’s addictive

potential (Edmonds & Wilcocks, 2000). Mandrax is popularly known as “white pipe” when it is smoked with cannabis.

The side effects of mandrax include: neurological damage, insomnia, nausea, poor general health and coma (Ganeri, 1997)

3.4.9. Heroin

Heroin is a semi-synthetic morphine derivative manufactured by various chemicals. Like morphine, heroin is a CNS depressant, which relieves pain and induces sleep. But because it is stronger and more addictive, it is rarely used for medical purposes. Many governments, including South Africa, forbid the manufacture, importation, and use of heroin, but many people obtain it illegally (Edmonds & Wilcocks, 2000).

Common street names of heroin are smack, brown sugar, ‘H’ and horse. Method of ingestion is injection, snorting or smoking.

With the use of heroin, there is a high risk of infections, such as hepatitis, syphilis and HIV/AIDS due to the sharing of unclean needles (Edmonds & Wilcocks, 2000; Robertson, 1987). It is also reported that heroin addicts engage in criminal activities to support the drug habit (Robertson, 1987)

3.5. Global trends in the use of alcohol and other drugs among young school learners.

In 2004, the United Nation Drug Control Programme (UNDCP) observed that is:

> "Information about the extent of drug use among young people in the world is often lacking, and the available data do not permit systematic comparisons. This is because surveys are usually carried out in different years and often use markedly different sampling and data collection methods. Where household surveys are conducted, they suffer from a number of limitations. Young people may be reluctant to admit using of drugs in the presence of families; they may not be included in the sample for ethical or administrative reasons; or they are simply more likely to be absent from the household when sampling occurs. Moreover, in many countries of the world, household surveys of the general population are neither methodologically nor practically viable. Most of the work has been conducted in developed countries and understanding of the prevalence rates elsewhere remains poor. In Africa, the limited data is available. Caution should therefore be exercised when generalizing from such survey results" (UNDCP, 2004, p 1-2).

Overall, prevalence of drug use among young school learners in many countries are higher than the general population. The main reason remains that adolescence is a period of experimentation and search for identity, and that young people are more likely than adults to experiment with various things, including drugs. Thus, prevalence rates among young people can be three or four times higher than those found among the general population (UNDCP, 2004).

3.6.1. Alcohol.

The *Global status report on alcohol* (2004) shows that alcohol still remains the most widely used substance worldwide. Young people tend to drink large amounts of alcohol. This is known as binge drinking, which is defined as drinking at least one bottle of wine, or 7 measures of spirits or 5 cans/bottles of beer or more during one drinking occasion (Hope, 2004; Morojele & Ziervogel, 1999). Binge drinking is usually higher in boys than in girls. A recent survey showed that young people reported the highest level of binge drinking in European countries. Binge drinking has become the norm among young Irish teenagers, that out of every 100 drinking occasions, 58 end up in binge drinking for males and 30 for females (Ramstedt & Hope, 2004). In Poland, among 16 years old, one in three were regular binge drinkers and one in four reported being drunk ten or more times in the previous year (Hope, 2004). Similarly, in Canada, 27.7% males and 24.6% females reported that they had drunk more than 5 drinks in the previous month (Hartnagel, 1996). So too in the USA, 58% young Americans reported binge-drinking episodes (Thompson & Walters, 2004).

In South Africa, while studying drinking patterns of three Cape Peninsula high schools, researchers also found that 39% of males and 18% of females had engaged in binge drinking over the previous month (Morojele & Ziervogel, 1999). Similarly, statistics other African countries reveal a similar trend that alcohol remains the dominant substance of choice and prevalence is considerably higher among adolescent males than females. The survey conducted by Meursing and Morojele (1989) indicates that 19% of young

males and 7% of females in Lesotho reported that they had drunk more than 10 drinks in the month preceding the research. This shows that binge drinking is a common practice among young school learners worldwide. In Zimbabwe, 32% of males and 28% of females reported binge drinking (Eide & Acuda, 1995). Also in Nigeria and Kenya respectively, 29% of males and 20% of females reported binge drinking in the previous month (Eke, 1997; Kiragu, 1994).

Many young school learners regard binge drinking as an important part of their self-identity. They have little awareness of their own vulnerability because they are surrounded by a peer group culture which approves binge drinking (Morojele *et al*, 2002). Binge drinking contributes to harm among young people such as unsafe sex, alcohol overdose, car accidents, fights, assaults, and poor academic performance (Global status on Alcohol, 2004).

SACENDU (2000)'s report states that alcohol still dominates treatment admissions with between 48% and 71% of admissions involving alcohol as the primary substance of abuse. However, the number of school learners admitted at treatment centres remains low because many of SACENDU's reports are based on adult patients. The 2004 SACENDU's report states that the average age of those seeking treatment for alcohol is getting younger and younger each year. 20% of young people between the ages of 10-19 were admitted in Durban's treatment centres for alcohol as the primary substance of abuse (Rasmoomar & Bhana, 2003). This is cause for concern for many professionals working in the field of treatment to see so many young school learners being addicted to

alcohol even though treatment demand for alcohol still remains higher for older patients than young school learners. This is related to the marginalization of young people on the issues of accessibility to services for alcohol counseling and treatment. Generally, young school learners rarely visit existing treatment rehabilitation services. One of the reasons is that treatment services are designed particularly for adults or serious alcoholics. They are not tailored to meet the needs of young people who often are in the early phase of alcohol abuse and do not consider themselves alcoholics. Therefore, there is the need to provide youth-orientated alcohol treatment services worldwide (UNDCP, 2004).

3.6.2. Tobacco/nicotine.

In addition to alcohol, tobacco is the most commonly used drug among young people throughout the world. Throughout the world, 14% of people aged between 13-15 smoke cigarettes and 25% of them started this habit before the age of 10 (World Health Organization, 2003). Data from the European School Survey on Alcohol and other Drugs (ESPAD) show that the lifetime smoking prevalence among young people in many European countries have increased significantly during recent years. Around 30% of 15-18 year olds in Europe are smokers (ESPAD, 2003). The highest smoking prevalence rates among 15-year-olds in the European Union (EU) countries can be found in Austria (32%), Finland (30%) and Germany (33%). The lowest prevalence rates are found in Greece (14%) and Sweden (15%) (ESPAD, 2003).

In most Africa countries smoking prevalence among young people is increasing

dramatically. The current youth smoking rate in Burkina Faso is 37%, 17% in Ghana, 24% in South Africa and 58% in Zimbabwe (Swart, Reddy, Pitt, & Panday, 2003). The tobacco marketing in Africa is massive and many children start smoking as young as eight or nine years, despite the Tobacco Control Amendment Act of 1999 (Reddy, 2003). The World Health Organization (WHO) estimated that currently, tobacco accounts for over 4 million deaths each year, a figure projected to rise to about 10 million by year 2030. In Lesotho, 27% of boys and only 2% of girls reported that they smoke cigarettes on a daily basis (Meursing & Morojele, 1989). Similarly, in South Africa, 32.3% of males and 20.7% reported that they smoke cigarettes on a daily basis (Reddy, 2003). It seems smoking among high school learners in Zimbabwe is even higher with 53% of males and 27% of reported that they are regular smokers (Eide & Acuda, 1995).

Dependence on tobacco/nicotine also develops rapidly. In a recent study, nicotine dependence and withdrawal symptoms were present in a third of adolescent smokers by the 16 years age (Bruvold, 1993, cited in Panagiotou, 2000). 66.9% of regular smokers have tried to stop smoking but have failed to stop the smoking habit (Flisher *et al.* 1993). Many young school learners continue to smoke despite having attempted to stop and as a result, the habit grows in each successive year. One of the findings that emerge from social surveys of smokers' habits and attitudes is the very large number of young school learners who express a wish to give up on smoking (Flisher *et al*. 1993). According to Orford (2001) , if addiction is judged by the criterion of difficulty in leaving off a behaviour despite wishing to do so, then tobacco might be judged to be, not simply addictive, but probably the most addictive of all substances. This is clear indication that

smoking cessation programmes are needed for young school learners to stop smoking. Currently, smoking cessation programmes are inaccessible to many young school learners in South Africa who wish to stop smoking. There is a great need to do something urgently to help many young school learners to quit smoking and maintain healthy lifestyles as part of the anti-smoking campaigns and preventative efforts. This area has been neglected (Reddy, 2003). Currently, it is estimated that 22% of young people in South Africa are regular smokers (Reddy, 2003).

3.6.3. Cannabis.

Cannabis is the most commonly used illegal drug worldwide. Cannabis use represents about 90% of all illicit drug use among school learners in the U.S and Australia and almost 95% in Europe (ESPAD, 2004). In Sub-Saharan Africa, cannabis is considered the main illicit drug of choice, with increasing use by young school learners being cited in several African countries. In South Africa, cannabis is a commonly used illegal drug among young school learners today (SACENDU, 2000; Edmonds & Wilcocks, 2000). 32% of males and 13.1% of female school learners reported dagga use in the previous month (Flisher, *et al.*, 1998). Owing to the fact that South Africa is the main producer of dagga, it is easily available and cheap. A matchbox of dagga costs approximately R5-00 (Edmonds & Wilcocks, 2000). Many young people begin to use dagga between the ages of 11-16 because of curiosity and myths associated with the use of cannabis (Rocha-Silva, *et al*., 1996). It is estimated that many young South Africans have tried this drug and many are regular users of two or more “joints” per week (Edmonds & Wilcocks,

2000). Similarly, cannabis is the most commonly used illicit drug among American and Canadian youth (Thompson & Walters, 2004; Hartnagel, 1996). The percentage of high school seniors in the U.S. who reported cannabis use in the past month continues to climb from 23.7% in 1999 to 58.1% in 2003. A third of young Canadians aged between 15-24 reported using cannabis at some time, with 44.1% reporting using it (Hartnagel, 1996). Young males are more likely than female youth to report using cannabis (Health and Welfare Canada, 1995, cited in Hartnagel, 1996). In France, the French Observatory of Drugs and Drug Use (OFDT) revealed that French teenagers are among the biggest consumers of cannibals in Europe. Asking 16,833 students last year showed that, by age 18, 36% of boys, and 16% of girls, were smoking more than 10 "joints" a month (OFDT, 2004). In Colombia, lifetime prevalence of cannabis among young people (12 to 20 year-olds) has been constantly increasing, according to national survey data, from 4.3 % in 1992 to 7.8% in 1996, reaching 17% in 1999 (UNDCP, 2004).

Many young school learners believe myths that smoking cannabis gives them energy and improve their talents (Edmonds & Wilcocks, 2000). But this is not true as studies show that the use of cannabis results in loss of energy, tiredness and lack of concentration. In one study, Molekwa (1998) compared smoking and non smoking school learners in Soweto Township, and showed that school learners who smoke cannabis achieved lower grades and are less likely to graduate from high school, compared to nonsmoking peers. This is because marijuana comprises one's ability to learn and remember information. For example, a study of 129 college students found that among heavy users of marijuana, the critical skills related to attention memory and learning were significantly impaired

(Hanson, 2003).

There has been increasing number of young people being admitted at treatment centres for dagga as the primary substance of abuse. 22% of young people between the ages of 10-19 were admitted in Durban's treatment centres for cannabis as the primary substance of abuse (Rasmoomar & Bhana, 2003). Withdrawal symptoms can make it hard for long-term dagga smokers to stop smoking. People trying to stop smoking cannabis report irritability, difficulty sleeping, and anxiety (Hanson, 2003). This is because treatment programs specifically directed at cannabis abuse are rare, and partly because many people who mix dagga do so in combination with other drugs, such as cocaine and alcohol. Cannabis is the most common primary substance of abuse for patients younger than 20 years in all sites. In Cape Town 57% of patients with cannabis as their primary substance of abuse were coloured, 22% were black and 20% were white. In Gauteng 58% were black and 28% were white (SACENDU, 2004).

3.6.4. Is cannabis a gateway drug?

Today, many drug theorists believe that cannabis is a "*gateway" or "stepping stone*" drug to other more serious drugs, although there is also strong argument against this view (Powers, 1999). The claim that cannabis use is a gateway to other more serious drugs such LSD, heroin, ecstasy, and cocaine is controversial. This is because millions of cannabis users never go beyond this drug (Hanson & Venturelli, 1998). However, some explanation is needed for the small percentages of cannabis users who do progress to hard drugs such as heroin, cocaine and crack because others argue that availability and

accessibility of hard drugs make cannabis users prone to use them (Stevens-Smith *et al*., 1998).

The critics of this theory argue that gateway theory is not theory at all; it is a description of the typical sequence in which alcohol or cigarette use is followed by cannabis and then other serious illicit drugs (Flisher, *et al*, 2002). The more important observation is that most young people who have tried cannabis do not go on to use harder drugs. One study conducted indicates that using cannabis does not cause someone to want to use heroin or other hard drugs (Zimmer & Morgan, 1997). The link between cannabis and other illegal drugs stems from that the fact they are all illegal but dagga is more popular and easier to find than other illegal drugs. So school learners are more likely to use cannabis, which puts them into contact with people who are sellers of other drugs and there is more risk that a dagga user will want to try other drugs (Zimmer & Morgan, 1997). More generally, Fergusson and Horwood (1999) suggest that the use of cannabis encourage individuals to experiment with other illicit drugs to determine whether these drugs have similar properties as cannabis. So the issue of cannabis being a 'gateway drug' is controversial and hotly debated in the field of drug use.

3.6.6. Other illicit drugs.

Data from the United Nations Office on Drugs and Crime (UNODC, 2003) show large-scale drug trafficking in different parts of the world and thus, use of other illicit drugs is on the increase among young people. UNODC estimates that about 200 million young

people use illicit drugs.

In many developed countries, for example, Canada, the USA and European countries, more than 2% of youths reported heroin use and almost 5% reported smoking cocaine in their lifetime. Indeed, 8% of youths in Western Europe and more than 20% of those in the USA have reported using at least one type of illicit substance other than cannabis (WHO, 2004). In 2000, U.S. researchers reported the lifetime prevalence of any illicit drug use by 12th graders to be 54.3%. About 76% of high school students and 46% of middle school students say drugs are kept, used, or sold on school grounds. 56% of 12 to 17 year-olds reported that they know a friend or classmate who uses a cocaine, heroin, or LSD (Bruner & Fishman, 2003). The latest *Monitoring the Future Study* (2004) shows the increase of ecstasy use among young people in the USA, from 48.4% in 1995 to 54.75% in 2002. However, in Canada, ecstasy use is still low as only 12.3% of young people reported the use of ecstasy in the past month. But the use could increase in the future because of ecstasy‘s low cost and high availability for young Canadian youth (UNDCP, 2004).

In Mexico City, studies on drug use by students show that, as in many other countries, boys more than girls are experimenting with drugs. The studies show that from 1993 to 1997, the proportion of adolescents that used cocaine doubled from 3.6% in 1993 to 12.4% in 1996 (UNDCP, 2004).

In Asia, abuse of drugs is also growing among children and youth. A 1999 study carried out in Thailand among students from grade six to high school found that 54.8% abused

methamphetamines. Also in China, a 1996 study conducted in eight cities in seven Provinces of China showed that over a half of heroin abusers are below 25 years of age (UNDCP, 2004). In Cambodia, lifetime abuse of any illicit drugs among students from 16 to 17 years of age was reported to be at 28% in 1997 (UNDCP, 2004)

In Australia, national household surveys show that the abuse of any illicit drugs by young people from 14 to 19 years of age increased between 1995 and 1998. In 1995, 42.7% of abuse of illicit drugs increased from 42.7% to 51.1% in 1998 (UNDCP, 2004).

In Africa, the use of illicit drugs is also growing among young people. The increase of illicit drug use among young people in Africa is linked between civil wars, crime and drug trafficking (Flisher, *et al*, 1998). Since 1994 South Africa has been targeted by drug crime syndicates to produce and supply illicit drugs to the other parts of the world. Today in South Africa, illicit drugs such as mandrax, ecstasy, cocaine, 'crack', heroin, and LSD are commonly used by young school learners (Edmonds & Wilcocks, 2000; SANCA, 1998, cited in Borkum, 1999). The results of nation-wide survey by Rocha-Silva (1998) indicates that among those respondents who answered the relevant question, mandrax (62,6%) was by far the substance abuse that was mostly reported as "first drug used", while about one-tenth (11,6%) mentioned LSD. The use of mixture of dagga and mandrax ('white pipes') seems to be gaining popularity among many young school learners. Three local school studies undertaken in the urban regions of Cape Town, Durban, and Gauteng reported lifetime prevalence rate of a mixture of dagga and mandrax to be 15% (SACENDU, 2001).

The ecstasy and LSD have also started gaining popularity at so-called rave parties and on the disco scene. A 1998/99 Ravesafe study among the 228 young people attending the rave parties in Durban and Johannesburg reported lifetime prevalence rates ("use ever") of 77% for ecstasy, 70% for LSD and 60% for poppers (SACENDU, 2000). The above-mentioned statistics support SACENDU's reports that drug use is increasing in South Africa, especially among young people. The increasing use of illicit drugs is related to drug trafficking in this country. The United Nations office reports on Drugs and Crime (2003) that South Africa is the regional hub for drug trafficking, and the largest transit zone for illicit drugs in the Southern Africa. For example, 155 kilograms of cocaine was seized by the South African Police (SAPS) from a ship off the country's East Coast (Sowetan, 21/11/2003). This is estimated to be the largest confiscation of cocaine on record for South Africa. The domestic heroin and mandrax markets are also growing rapidly. It is estimated that tons of drugs are intercepted at the South African airports and harbours per year. In Durban 73% of arrests for dealing with drugs involved mandrax (SACENDU, 2000). It estimated that 2 million mandrax tablets were also seized nationally by the SAPS in the 2nd half of 2000 (SACENDU, 2000). This bears testimony that the increasing use of illicit drugs is related to drug trafficking in this country.

The admission of young school learners at treatment centres for various illicit drugs as primary substances of abuse is also increasing. According to Parry *et al*. (2004) mandrax is the most frequently reported substance of abuse for adolescent patients in Cape (29.3%), in Durban (1.9%) and in Gauteng (11.2%).

From January 1997 to December 2001, treatment demand for heroin-related problems increased from 5.0% to 9.1% and ranged between 4.7% and 7.5% of the total adolescent substance treatment demand in Cape Town and Gauteng, respectively (Parry *et al*., 2004).

Across sites and over time, the proportion of adolescent patients reporting ecstasy and other club drugs (e.g. LSD) as their primary drug of abuse accounted for less than 5% of the total. Club drugs are often reported as secondary drugs of abuse that are used in combination with other substances (Parry *et al.,* 2004). For example, a demand for Speed as the secondary substance of abuse was noted in Cape Town in 2003, especially among patients under 20 years (SACENDU, 2004).

There were also reports of the increasing use of methcathinone (also known as CAT) among young patients in Cape Town and Gauteng (Parry *et.al*, 2004; SACENDU, 2004).

This literature review clearly shows that the average age of those seeking treatment is getting younger and younger and there is an urgent need to transform the treatment programmes to suit the needs of young school learners. The present research evidence show that drug rehabilitation services for young school learners are very limited (Green, 2000). There is a need to transform the current treatment services to be tailored to meet the needs of young school learners.

In summary, this chapter has reviewed the prevalence rates of alcohol and other drugs in

South Africa. The statistics are provided in this chapter and also compared with other international studies in America, Canada, France and many other African countries.

3.7. Theories of alcohol and other drug use.

Jung (2001) asked: why do people use alcohol and other drugs? This is a complex part of the study that provides different theories of alcohol and other drug use considering physical and social psychological risks involved with the use of many drugs. It is apparent that there must be powerful factors leading to the continued and often increased use of alcohol and other drugs (Jung, 2001). Major theories about factors that lead people to use alcohol and other drugs are examined in this chapter. The theories of alcohol and other drug use differ for different individuals. Most writers argue that the use of alcohol and other drugs appear to be a complex interaction of environmental, psychological, biological, and contextual factors which place teenagers at risk of alcohol and drug use (Jung, 2001; Hanson *et al*., 1998; Stevens-Smith, *et al*., 1998). As a result, all contributing factors for the development of alcohol and other drug use are considered in this study.

3.7.1. Disease model.

The disease model is the most popular model for explaining alcohol and other drug use. This disease model is credited to E.M. Jellinek who presented a disease model of alcoholism in the 60s'. Following Jellinek's work, many began to use the term disease to describe alcoholism. As with many concepts and theoretical models in the addiction field, the disease concept was originally applied to alcoholism and has been generalized to addiction of other drugs as well (Fields, 2001). According to the disease model of

addiction, habitual use of alcohol or drug use is characterized as a disease (Jung, 2001). The 'disease of addiction' is viewed as a primary disease. Jellenik described five stages of drinking behaviours numbered by the letters of the Greek alphabet: alpha, beta, gamma, delta and alpha (George, 1990; Light, 1985, cited in Stevens-Smith, *et al*., 1998). According to Jellinek, stages of alcoholism include early, middle and late.

The disease model of addiction is probably the most controversial and debated topic in the entire field of substance abuse/addiction. Critics have suggested that financial and political motives have served to maintain the dominance of the disease model, despite findings that violates its basic tenets (Bride & Nackerud, 2002). Herbert Fingarette (1996, cited in Fields, 2001, p 188) goes on to state that alcohol industry itself also contributes to forming a public perception of alcoholism as a disease, as a marketing ploy:

> "By acknowledging that a small minority of the drinking is susceptible to the disease of alcoholism, the industry can implicitly assure consumers that the vast majority of people who drink are not at risk"

There are many other criticisms of the disease model. The limitation of the disease model is the lack of consideration on the environmental factors (Stevens-Smith, *et al*. 1998). The disease model is also counterproductive because it implies lack of control by the drinker. This is because some people may attempt to deny responsibility for entering treatment programmes with attitude of "what do you expect from a person with disease" (Stevens-Smith, *et al*., 1998). The disease model is disempowering for the person, their family as it suggests that the person is unable to change.

Despite all these criticisms against disease model, it is important to acknowledge that Jellinek as the founder of the model made an important contribution to the field of drug dependency, thus enhancing our understanding and treatment of alcohol patients. The disease model continues to dominate many of the treatment programmes, despite heavy criticisms leveled against this model. The disease model views drug dependency as an illness, and thus, should not be stigmatized (Stevens-Smith, *et al*., 1998). The treatment goal of the disease model is complete abstinence, based largely on the basic tenets of Alcoholics Anonymous (AA). According to this view, treatment emphasizes admitting powerlessness over drugs, and advocates adopting norms and values of a new social group, the AA self-help group, in order to achieve total abstinence (Stevens-Smith, *et al*., 1998).

3.7.2. Genetic perspective.

Since the introduction of the disease concept research studies have examined a possible link in alcoholism/addiction and genetics. The genetic perspective assumes that drug use is related to genetic factors. The perspective is supported by the observation that increased frequency of alcoholism and drug use exists among children of alcoholics and drug users (Uhl, *et al*, 1993, cited in Hanson, *et al*, 1998; Fields, 2001). Although several genetic studies have confirmed these findings, others have not (Fields, 2001). This simplistic genetic perspective makes the mistake of labeling all alcoholics and addicts as somehow possessing particular genetic traits that lead to addictive and compulsive

behaviour (Fields, 2001). According to Fields (2001) it is more accurate to recognize that many personality traits can also make an individual vulnerable to the disease of alcoholism and drug addiction. Searles (1991, cited in Stevens-Smith, *et al*. 1998) argues that there is tendency of genetic perspective to reduce any behaviour to genetic factors. Some authors ask why most children of alcoholics do not become alcoholic or why some children seem to be more resilient to the intergenerational effects of alcohol than others (Searles, 1991, cited in Stevens-Smith, *et al*, 1998). Genetic components of alcohol and other drug abuse are less clear; however, further genetic studies are important to assist researchers to understand genetic factors that lead people to use alcohol and other drugs. Another major limitation of genetic perspective is lack of consideration of the environmental factors (Stevens-Smith, *et al*., 1998).

3.7.3. Psychoanalytic perspective.

The traditional psychoanalytic view of alcohol/drug use focused on fixation at the oral stage of development, resulting in an oral and narcissistic premorbid personality (Fields, 2001). Otto Fenichel (1945, cited in Fields, 2001) and Levin (1990) theorized that individuals use psychoactive drugs “to satisfy the archaic oral longing, which is a sexual longing, a need for security, and need for maintenance of self-esteem simultaneously”. In addition, K.Menninger (1963, cited in Fields, 2001; Levin, 1990) believed that drug use may function as a coping device to alleviate stress and that the primary psychoanalytic root is a mother‘s denial of milk in infancy. Other psychoanalytic theories described drug use as a defensive mechanism to cope with painful feelings and overwhelming

responsibilities in the outside world (Chein, 1964, cited in Levin, 1990). Kohut (1977, cited in Levin, 1990) believes that drug abuse is a futile attempt to raise self-esteem, quell anxiety, feel soothed, feel cohesive, or whole, feel full as opposed to empty, feel companioned as opposed to alone, and to feel safe.

Many critics argue that the limitation of psychoanalytic view is that it views substance use as an individual problem in isolation from their family, environment and ignores the influence of peer pressure and individual's environment (Stevens-Smith, *et al*, 1998).

Despite these limitations, psychoanalytic perspective provides practitioners with many therapeutic tools to challenge defense mechanisms used by the alcoholics and drug addicts. Defense mechanisms are subconscious processes that people use to protect their fragile egos from emotional pain and anxiety. Alcoholics and drug addicts use the following defense mechanisms: denial, repression, projection, regression and rationalization of drugging behaviour (Edmonds & Wilcocks, 2000). It is important for those working in the field to be aware of these defense mechanisms as stipulated by psychoanalytic theory. This is because the behaviour of an alcoholic or drug addict is to be interpreted as a symbolic means of expressing unconscious conflict (Fields, 2001).

3.7.4. Stress theory

The notion that stress lead to alcohol and other drug use amongst school learners is not new. The stress theory is a widely held view of why school learners use alcohol and other

drugs. The stress theory argues that young people turn to drugs or inhalants to deal with feelings of frustration, hopelessness, and worthlessness caused by their failure at school or conflicts at home (Bry, 1983; Sinha, 2001). It is clear that teenagers may use drugs as a means of temporarily alleviating discomfort connected to life events which they perceive as being out of control (Sinha, 2001). This is because teenagers are faced with many conflicts of sexuality, identity problem, pressure to excel at school and adjust to many bodily changes and as a result, teenagers use drugs to cope with these emotional conflicts (Sdorow, 1990, cited in Borkum, 1999). This is also known as tension-reduction model, which focuses on tension reduction and relief of stress as a primary reason for alcohol and other drug use. The individuals use alcohol and other drugs to counteract stress, anxiety, emotional tension and conflict (Fields, 2000). Alcohol and drugs are therefore used as tension reducers.

The major limitation of stress theory is the lack of explanation regarding why individuals are unable to withstand or tolerate stress. This issue needs further investigation of resilient mechanisms which may help individuals to cope with difficulties in life, without resorting into maladaptive ways of alcohol and other drug use (Fields, 2000).

3.7.5. Problem-behaviour theory

Problem behaviour theory was developed specifically to explain alcohol and other forms of problem behaviours, with a particular focus on adolescents. According to Morojele (1997) the theory was first applied by Jessor in 1968 and later developed and elaborated

with more conceptual framework proposed to account for risk behaviours among adolescents.

The problem behaviour theory assumes that drug use among youth is not an isolated behaviour, but parts of other larger problem behaviours such as deviant sexual behaviour or criminal behaviour (Jessor & Jessor, 1977, cited in Morojele, 1997; Jung, 2001). Problem behaviour is defined as a behaviour that departs from the norms both social and legal of the larger society and is socially disapproved by the institutions of authority (Jessor, 1987, cited in Morojele, 1997). Within the range of such behaviours are included the use of alcohol and other drugs (Morojele, 1997). Behaviours characterizing the problem behaviour structure include problem drinking, marijuana use, cigarette smoking and other deviant behaviours (Jessor & Jessor, 1977, cited in Morojele, 1997).

3.7.6. Sociological theory.

The sociological theory contends that certain factors in individual and the environment may contribute to use of alcohol and other drugs among young people. Research studies indicate that environmental factors such as socio-economic status, poverty, urbanization, delinquency, family background, peer pressure, religion, educational disturbances, availability, price, unemployment, family living conditions, and negative family communication influence young people's use of alcohol and other drugs (Parry & Bennets, 1998; Jung, 2001).

Sociological theory also stresses the importance of alcohol and other drug use as a reference to group activity. Therefore, school learners are pressurized into using alcohol and other drugs if they want to be part of a group that takes substances and behave in a similar way to the members of the group (Peltzer & Phaswana, 2000). It appears to be pressure within groups to convert non-taking members to use alcohol and other drugs (Peltzer & Phaswana, 2000).

Furthermore, Rocha-Silva et.al (1996) argues that alcohol and other drug use develop as a result of complex interactions between socio-economic and cultural factors. This is because many young black youth grow up in an environment where there is less discrimination against those who use alcohol and other drugs (Rocha-Silva, et.al, 1996). The environment reinforces use of alcohol and other drugs. It is also clear that alcohol and other drug use are not isolated behaviours, but reveal other social dynamics in communities.

The major limitations of this theory are that genetic factors are ignored; family dynamics are not directly addressed and individual or personality factors are not addressed.

3.7.7. Family systems perspective.

The family systems perspective is based on the theoretical assumption that family is explored as a “system” whose parts interacts, co-vary and evolve with each other in ways which maintain and protect existing patterns (Fields, 2001). According to Schmidt and

Padilla (2003) argued that the problem of drug use should not always be attributed to an individual, but to the whole family system. Family systems perspective views parts of a family as a whole, with each member contributing to the problem of drug use (Goldenberg & Goldenberg, 1995, cited in Stevens-Smith, *et al*, 1998). It is clearly stipulated that the primary goal of any system is to maintain homeostasis, to balance the system and make adjustments to restore that equilibrium whenever it is threatened (Stanton & Todd, 1995, cited in Stevens-Smith, *et al*, 1998). In a well-functioning family, homeostasis protects the individuals so that the needs of each member can be met. However, in a dysfunctional family, the needs of each member are not met. The dysfunctional family is characterized by emotional abuse, divorce, single parenting, poor communication, and poor parenting skills (Ben-Zur, 2003). The substance use by parents is also more prevalent in dysfunctional families (Ben-Zur, 2003; Schmidt & Padilla, 2003). And as a result, rules, roles and boundaries of the family system become distressed for parents to communicate with their children about the dangers of drugs.

Researchers have found that children from dysfunctional homes are more likely to report alcohol and other drug abuse than children of well functioning families (Johnson & Jacob, 1995, cited in Ben-Zur, 2003). This is because lack of communication between parents and children about the dangers of substance abuse, which is usually part of a larger pattern of distance among family system, is often found in the families of alcohol abusers (Dorus & Hughes, 1978, cited in Borkum, 1999). Parents may also influence drug use if they model smoking, drinking alcohol or using other drugs, condoning such behaviour in developing adolescent (Schmidt & Padilla, 2003)

In the process of treatment, family systems perspective advocates that in order to facilitate change, intervention needs to take place within the whole family system rather than at the level of the individual (Schmidt & Padilla, 2003). Instead of addressing drug abuse as primarily in the individual, there is a need to consider family factors (Lohman & Jarvis, 2000). This is because growing up in a warm family context is positively associated with healthy psychological growth during adolescent years (Lohman & Jarvis, 2000). The parent-adolescent relationships have been linked to the ability of adolescents to cope with daily stressors related to school, friends and romantic partners (Lohman & Jarvis, 2000).

It is clear that family systems theory provides a clear understanding of alcohol and other drug use amongst school learners, as it views this problem as part of the larger "system" which interacts, and evolves with each other in ways that maintain and protect existing patterns (Fields, 2001). Changes can also be affected by intervening within the system rather than at the level of the individual.

3.7.8. Social learning theory

Social learning theory assumes that drug abuse is influenced through behavioural subtests such as differential association, modeling, reinforcement and normative definitions (Hanson, *et al*, 1998; Stevens-Smith, *et al*, 1998). The most influential group among youth is the peer group. Peer pressure is a common reason given by adolescents for

alcohol and other drug use (Moleko & Visser, 1999; Parry & Bennets, 1998; Rocha-Silva, 1998). As process of peer selection (Farrel, 1994, cited in Jung, 2001) suggests that adolescents who already use drugs seek out or prefer the company of other adolescents who share their involvement with drugs. The positive social influences and social approval by drug-using peers reinforce the attraction to drugs (Stevens-Smith, et.al, 1998). It is through learned expectations, or association with others who reinforce drug use, that individuals learn the pleasures of drug taking (Stevens-Smith, *et al*, 1998). The pleasure of getting high associated with drugs may become a learned conditioned and reinforcing (Levin, 1990). For example, some people use alcohol to deal with stress, anxiety, and depression. As a result, for them, drinking alcohol is reinforced by its positive consequences (Levin, 1990).

Furthermore, modeling and parental influences were also stated as reasons precipitating alcohol and other drug use (Morojele, 1997; Stevens-Smith, *et al*, 1998; Hanson, *et al*, 1998). Social learning theory argues that we model our behaviour after others such as parents, peers and role models. The theory was elaborated by Bandura (1963, cited in Morojele, 1997; Akers, 1992) that other people's behaviour becomes a powerful influence. The well-known argument by modeling theory is that alcohol advertising increases consumption of alcohol in a number of ways. The results of the studies relating to alcohol and advertising suggest that alcohol advertising may predispose young people to drink (Parry & Bennets, 1998). This is because the uses of celebrities, lifestyle portrayals that glamorize drinking by linking alcohol to rewarding psychological and social outcome have a strong appeal to young people under the age of 18 (Atkin, 1990,

cited in Parry & Bennets, 1998). It is therefore suggested that alcohol advertising be banned, sponsorship of sports events by the alcohol industry be restricted and warning labels be mandatory to disclose alcohol content information which will enable drinkers to know the negative effects of alcohol (Parry & Bennets, 1998). This suggestion of alcohol policy is based on the modeling theory that other people's behaviour is of powerful influence.

3.7.9. Developmental perspective.

Developmental perspective argues that adolescence is a critical period of development where the individual may be more vulnerable to social or peer pressure than at any other stage of development (Sprinthall & Sprinthall, 1990, cited in Borkum, 1999). For adolescents this period is marked by a conflict between peer and parental influences, as individuals are flooded with a host of choices regarding sex, drugs, friends, and school work (Sdorow, 1990, cited in Borkum, 1999). According to Jung (2001) for many adolescents, the attractive promise of rewarding and exciting experiences from experimenting with alcohol and other drugs exceed the threat of physical, social and in some cases, legal costs.

Research studies on the use of drugs among adolescents have been widely conducted and much emphasizes reasons for taking drugs include seeking pleasure, curiosity and to achieve social status or prestige in a social group (Edmonds & Wilcocks, 2000; Peltzer & Phaswana, 2000). It is clear that some teenagers will only satisfy their curiosity quickly

and discontinue use. However, others will increase their frequency of use as well as use higher amounts (Jung, 2001). Generally, many studies among young people aged 10 to 21 years corroborated earlier findings that drug use is often viewed as a “normal transitional behaviour” during adolescence to adulthood (Rocha-Silva, 1998).

In summary, this chapter has reviewed different theories concerning alcohol and other drugs use. It is clear that alcohol and other drug use are influenced by an interaction of environmental, psychological, biological and contextual factors. The major theories included biological, psychoanalytic, family system, sociological, social learning, and development perspectives. These theories provide a clear understanding of alcohol and other drug use amongst school learners.

Chapter 4: Research design and Methodology

4.1. Research design

The research design in this study was informed by a quantitative approach. The nature of this research topic is relevant to the quantitative approach as the study was more concerned with prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township. The issue of sampling was also important to ensure that the participants were representative of the general population at the school to test the hypotheses in the study. The collection of data took place through use of a questionnaire, mostly requiring 'yes' or 'no' answers. The data analysis proceeded by using statistics and graphics to show the prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township.

4.2. Participants and sampling strategy

The participants for this study were school learners from one high school in Alexandra Township. All the participants were in grade 9, 10, and 11. The sample consisted of 118 participants between the ages of 14 and 20. Of these, 44 were in grade 9; 37 were in grade 10 and 32 were in grade 11.

The stratified random sampling was used to identify the potential school learners in the study. Stratified random sampling is mostly used in quantitative research to ensure that each participant has an equal chance of being chosen in the sample (Babbie & Mouton,

2001). In the study, the researcher decided to use the stratified random sampling to ensure an equal distribution or representation of both females and males in grade 9 to 11. The researcher requested the school registration list of names of school learners in grade 9, 10, and 11. The names of males and females were put into two different boxes and the researcher randomly selected the participants from each group to make a total sample. However, before selection, the researcher gave the school learners an information sheet detailing that their participation in the study was voluntarily and that they had the right to withdraw from the study at any stage. The school learners signed a consent form (See appendix II) as a sign that they voluntary agree to participate in the study.

The primary motive for utilizing a large sample is that it often improves the reliability of the study. A large sample increases the statistical power of the hypothesis testing in the study. Thus in total, 118 school learners participated in the study.

4.3. Instrument

The instrument used in the study was a questionnaire, mostly requiring ‘yes’ or ‘no’ answers. The instrument has been used in many local studies to determine the prevalence of alcohol, tobacco and other drug use amongst school learners in Cape Town (Flisher, et.al, 1998). The researcher also added other new items in the questionnaire to determine the frequency of substances use. The instrument was translated from English into Sesotho. Besides items about the demographic characteristics (gender, grade and age), the instrument includes items about whether the school learners had used various substances

such as alcohol, tobacco, marijuana, ecstasy, mandrax, heroin, and LSD. For each substance, the school learners were asked whether they had ever used the substance, and if they had, at what age they started using the substance, whether they had used the substance in the previous year or month and how often they had used that substance. The time taken to complete the questionnaire was 30 minutes.

4.4. Piloting and translation of the Questionnaire.

Initially the questionnaire was piloted amongst school learners at one school in Alexandra Township to determine if the questions would be understood appropriately and whether the language was pitched at the appropriate level. The results of the pilot study indicated that the school learners were unable to understand some of the items in the questionnaire. Modifications of the pilot questionnaire were made on the basis of responses obtained from the pilot questionnaire. The researcher decided to use simple concepts in the questionnaire. Initially the questionnaire was only written in English and the results of pilot study also indicated that some instructions were too difficult to understand for many school learners. The researcher as a Sotho-Speaking translated the questionnaire into Sesotho because the majority of school learners indicated that they speak Sesotho as their first language. Then the researcher requested colleagues to back translate the questionnaire from Sesotho into English to make sure that the questionnaire did not loose its initial meaning. The results of the study show that the translation and back translation of the instrument have helped many school learners to understand items in the questionnaire.

4.5. Procedure

Before embarking on the study, the researcher wrote a letter to the School Principal seeking permission to do research in the school. In the letter, the researcher explained the nature and the purposes of the study. The School Principal gave the researcher a written approval for the study to take place in the school (See appendix III).

On the agreed date, the researcher went and distributed the questionnaire to school learners in grades 9, 10, and 11. The administration of the questionnaire took place in the school hall. The selected school learners completed the questionnaire during a normal school period. The seating was arranged such that confidentiality was preserved. No school staff members were present during the administration of the questionnaire. All the school learners completed the questionnaire within 30 minutes. After completing the questionnaire, the school learners were requested to leave their questionnaires on the table. The researcher collected the questionnaires on the same day they were distributed.

4.6. Ethical issues

First, the researcher explained the purpose of the research to the school learners and allowed them to ask questions about the research before asking them to fill-in the questionnaire. The researcher told the school learners that their participation in the study was voluntary and those who did not wish to participate should feel free to decline. The school learners signed a consent form (See appendix II) as a sign that they voluntarily

agree to participate in the study. The researcher also told the participants that all the information that they disclose would remain confidential and anonymous because no-one is expected to mention his or her name when filling-in the questionnaire.

4.6. Data analysis

The SPSS (**Statistical Package for Social Sciences**) was used for data analysis. To analyze demographic information such as gender, age and grade level, the descriptive statistics was utilized to describe the data.

Prevalence rates of alcohol and other drug abuse were also provided for last year and last month. The Chi-square test was used to test the difference between males and females regarding substance use. The analysis was conducted to test if the gender difference was statistically significant regarding substance use.

The age of first use of substances was also stratified by gender. The *t-test* was used to test the age at which both males and females started using substances. The *t-test* analysis was also conducted to test if the age difference between males and females was statistically significant.

For frequency use of substances by gender, the analysis was only performed on tobacco, alcohol and marijuana. The main aim was to determine how frequently school learners smoke tobacco, marijuana and drink alcohol.

5. Results

Table 1: Background demographics:

Demographics		**N**	**%**
Gender	**Male**	55	46.6
	Female	63	53.4
Grades	**9**	44	40
	10	37	32.2
	11	32	27.8
Age	**14**	7	6.0
	15	19	16.2
	16	33	28.2
	17	26	22.2
	18	19	16.2
	19	8	6.8
	20	5	4.3

The sample consisted of 118 school learners. Of these 44 (40%) were in grade 9, 37 (32.2%) in grade 10 and 32 (27.8%) in grade 11; 55 (46.6%) were males and 63 (53.4%) were females; 50.4% were aged between 14—16, while 49.5% were aged between 17-20 years. Most learners were 16 years old. The average (X) age is 16.5. Only one participant did not mention the age level, and five participants who did not mention their grade levels.

Table 2: **Prevalence rates of substance use (last year and last month) by gender**

Substances	Last year				Last month			
	Male		Female		Male		Female	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Tobacco	16	29	25	47.6	30	54.5	24	38.4
Alcohol	34	61.8	39	61.9	27	49.1	25	39.6
Dagga	24	43.6	9	14.2	20	36.4	8	12.6
Dagga & mandrax	5	9.1	3	4.7	5	9.1	1	1.5
Crack cocaine	1	1.8	0	.0	3	5.5	0	.0
Ecstasy	1	1.8	1	1.5	4	7.2	3	4.7
LSD	1	1.8	0	.0	0	.0	0	.0
Heroin	3	5.4	0	.0	1	1.8	0	.0

--- Last month- means use of substances 30 days prior to the study.

The results in Table 2 indicate the last year and last month's prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township. The last year prevalence for tobacco is 29% for males and 20.6% for females. For last month the prevalence for smoking is 54.5% for males and 38.4% for females. In the analysis of Chi-square scores, the gender difference in smoking was not statistically significant ($\chi^2 = .109$).

Last year a prevalence rate for dagga is 36.4 % for males and 14.2% for females. For last month the prevalence for smoking is 43.6% for males and 12.6% for females. In the analysis of Chi-square scores, the gender difference in smoking dagga is statistically

significant (χ^2=.005). More males than females reported to have smoked dagga last year and last month.

For the last year the prevalence rates for alcohol use was 46.5% for females and 45.4% for males. In the analysis of Chi-square scores, the gender difference was not statistically significant (χ^2=.904).

For both last year prevalence rates of illicit drugs is higher among males than females. With last year 9.1 % for males and 4.7% for females reported to have smoked a mixture of dagga and mandrax. For last month 12.7% of males and 1.5% of females reported to have smoked a mixture of dagga and mandrax. However, the gender difference was not statistically significant (χ^2=.198).

The percentage of males who reported to have used ecstasy last year is 1.8% and 1.5% for females. The results suggest that the use of ecstasy is moving beyond the clubbing or raving environment to other black communities of South Africa. For last month 7.2% of males and 4.7% of females reported the use of ecstasy. In the analysis of chi-square scores, the gender difference was not statistically significant (χ^2=.745).

For last year 1.8% of males and zero percent of females reported the use of crack cocaine. Today crack cocaine is popularly known as '*rocklefase*' among male school learners in Alexandra Township. However, the analysis of Chi-square scores indicates that the gender difference was not statistically significant (χ^2=245).

Last year prevalence of LSD is 1.8% for males and zero percent for females reported the use of LSD. In the analysis of Chi-square scores, the gender difference is not statistically significant ($\chi^2 = .249$).

Last year prevalence of heroin is 5.4% (1.8% last month) of males and zero percent females reported the use of heroin. For both LSD and heroin it is only males who reported to have used these substances. However, the gender difference between males and females is also not statistically significant on the use of heroin ($\chi^2 = .249$).

Generally, the results reject the hypothesis that there are differences between males and females regarding substance use.

Table 2: **Age of first use of substance by gender.**

Age	Tobacco				Alcohol				Illicit drugs			
	Male *N= 34*		Female *N= 28*		Male *N= 36*		Female *N= 39*		Male *N= 22*		Female *N= 14*	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
9---10	3	8.8	0	.0	4	11.1	1	2.5	0	.0	0	.0
11---12	2	5.8	4	14.2	6	16.6	6	15.1	0	.0	0	.0
13---14	10	29.6	16	57.5	9	25	16	41.4	4	9.5	0	.0
15---16	15	44.4	7	25	15	41.6	14	35.3	18	42.8	3	21.4
17---18	4	11.7	1	3.5	2	5.5	2	5.2	20	47.6	11	78.5

--**Age of first use** –means age of regular use of substances, not age of experimentation.

Table 3 indicates that for both males and females age of the first use of all substances is 14 and less, especially for cigarette and alcohol. The results show that the age at which school learners' start smoking cigarette is getting younger and younger for both genders. 8.8% of males reported the age 9-10 as the ages of first use of cigarette. It seems males are more likely to start smoking at an early age. However, the analysis of *t-test* scores indicate that the age difference between males and females is not statistically significant (*t-test* =.185).

With regard to alcohol, the age of the first use of alcohol is also getting younger and younger for both genders. 11.1% of males and 2.5% of females reported the age 9-10 as the age onset of drinking of alcohol. The results show that an increasing number of school learners for both genders started using alcohol at an early age. However, the

analysis of *t-test* scores indicate that the age difference between males and females was not statistically significant (*t-test*=.293).

On the use of dagga, the age of the first use of dagga is slightly older than the first use of cigarette and alcohol. Both males and females report the age of the first use of dagga at the age 13-14. 44.6% of males and 14% of females reported the age 13-14 as the ages of first use of dagga. It seems progression into other illicit drugs such as dagga seemed to increase with age level. However, the analysis of *t-test* scores indicates that the age difference between males and females was not statistically significant (*t-test* =.601).

The findings show that the age of the first use of a mixture of dagga and mandrax is between age 15-16 (6.6 % of males and 3.3% of females). In the analysis of *t-test* scores, the gender difference between males and females was not statistically significant (*t-test* = .153).

With regard to crack cocaine, ecstasy, LSD and heroin the age of the first use are started at around 15-16 (See table 3). The data suggests school learners were more likely to use other serious drugs from age 15-16 to age 18-21. The data confirm that progression into other serious illicit drugs seemed to increase with age level. This trend is manifested in the study. The analysis of *t-test* scores revealed that the age difference between males and females was not statistically significant in the use of illicit drugs (*t* =.769).

Generally, the results reject hypothesis that there are age differences between males and

females in the age of commencing use of substances.

Table 4: **Frequency of use of substances by gender**

Frequency	Tobacco				Alcohol				Dagga			
	Male N= 33		Female N= 23		Male N= 30		Female N= 36		Male N= 25		Female N = 9	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Everyday	26	47.2	20	41.2	4	7.2	2	3.6	16	29.9	4	6.3
Only on weekends	4	7.2	1	1.5	15	27.2	11	17.4	5	9	1	1.5
Only when I'm drinking	3	5.4	2	3.6	----		----		4	7.2	4	6.3
Festive/party	----		-----		11	20	23	36.5	-----		----	

---- Question is not applicable to this substance.

Table 4 depicts school learners' frequency of use of substances. The table shows that cigarettes are a commonly used substance by both males and females. 47.2% of males and 41.2% females reported that they smoke cigarettes daily. The results show that school learners smoke cigarettes on a daily basis. The results also show an increasing number of females who smoke cigarettes on a daily basis.

For the majority of males and females, the alcohol use usually takes place over the weekends, with a 27.2% of males reported using alcohol over the weekend and 17.6% of females. The results also suggest that a higher number of females (36.5%) than males (20%) reported that they frequently use alcohol on special occasions such as Good Friday and Christmas. The main reasons for drinking during the festivities are for mood changing and enjoyment/fun.

For both males and females, the results show that dagga is a commonly used illicit drug, with a 29.9% of males and 6.3 % of females reported that they use dagga everyday.

6. Discussion

6.1. Alcohol use

The findings of the study suggest that alcohol is a widely used substance amongst school learners in Alexandra Township. These findings are in line with SACENDU's results (Parry *et al*, 2004). Trends in alcohol and other drug use (AOD), identified by SACENDU, indicate that alcohol is a widely used substance by South African adolescents (Parry *et al*, 2004). The results of this study also show that the use of alcohol appears to be the most common substance of use amongst school learners across both genders. The study found that a past month use of alcohol is 54.5% in males and 38.4% in females, which is higher than that of secondary school learners in Cape Town (22% for males and 18% for females) (Flisher, *et al*, 1998). Similarly, Peltzer, Cherian and Cherian (1999) found the prevalence rates of 26% in males and 16% in females for alcohol use in the past month amongst high school learners in Limpopo Province. The use of alcohol is high in males than females.

Preliminary data from Medical Research Council (MRC) study of alcohol use among adolescents (aged 12-17) in Gauteng also indicates that 2 in 6 have engaged in binge drinking in the past 30 days (Morojele, *et al*., 2002). In a study of 35 schools in Pretoria in 2000, 40% of students reported binge-drinking in the two weeks prior to the study (Parry, *et al*, 2004). Many young school learners regard binge drinking as an important part of their self-identity. They have little awareness of their own vulnerability because

they are surrounded by a peer group culture which approves binge drinking (Morojele *et al,* 2002). The significance role of binge drinking contributes to harm among young people such as unsafe sex, alcohol overdose, car accidents, fights, assaults, and poor academic performance (Global status on Alcohol, 2004).

6.2. Frequency of alcohol use

In terms of frequency of use of alcohol, the findings show that 27.2% of males are more likely to use alcohol on weekends. Meanwhile 36.5% of females reported that they frequently use alcohol on special occasions such as Good Friday, Christmas and New Year's Day. Similarly, Rocha-Silva (1998) found that young black people generally reported drinking on special occasions. The present study also suggests a strong connection between drinking and festivities, especially among females. The main reasons for drinking during the festivities are for mood changing and enjoyment or fun. There is also peer pressure to drink because friends are drinking during the festivities. The national survey conducted by Rocha-Silva (1998) confirmed this trend that there is a strong connection of alcohol use and attendance of festivities such as weddings, birthday parties, unveiling of tombstones and other African traditional ceremonies. Teenagers therefore learn from adults that drinking alcohol is a source of entertainment during the festivities to celebrate special events. Many of them drink alcohol in the presence of adults and relatives to celebrate occasions such as Christmas, New Year and Good Friday. In rural-urban areas, a home-brewed alcohol is usually prepared by the elders to celebrate different traditional ceremonies and young school learners who attend these traditional ceremonies, drink a home-brewed alcoholic beverage in celebrating

thanksgiving ceremony to the ancestors. In Lesotho, 2% of school learners stated they preferred to drink the traditional home brew. Future research studies are still needed to investigate the prevalence rates of home-brewed liquor use amongst school learners in Alexandra Township and other parts of South Africa. This topic has been under researched. Currently, research studies concentrate only on the use of western alcoholic beverages but nothing is known about the use of home-brewed liquor, its consequences and addictive properties. It is also important to extend the drug awareness campaigns beyond school learners to parents and other community members because it seems school learners also learn about the use of alcohol from others such as parents, relatives and role models.

6.3. Age of first use of alcohol.

The findings show that school learners start using alcohol at the age of 10 years. This confirms the findings by Moleko and Visser (1999) that the age at which young people start using alcohol is getting younger and younger. This is cause for concern that the use of alcohol among young school learners is rapidly increasing. This could be linked to the easy access of alcohol. According to the South African liquor Act of 1999 children under the age of 18 are not allowed to buy alcohol. However, on the contrary, the study shows that an increasing number of school learners reported early ages as their first use of alcohol. In Alexandra Township a means of survival for many unemployed parents is to sell alcohol (Moleko, 2000). There are currently almost 200 unlicensed liquor stores from street vendors and school corners (Moleko, 2000). Some pub owners sell alcohol to

young school-going learners regardless of the South African Liquor Act of 1999, which forbids selling of alcohol to children under the age of 18 years. It is therefore very easy for many young school-going learners to buy alcohol from these bottle stores and illegal taverns (Moleko, 2000). This means there is an urgent need to create awareness of this law and control selling of alcohol to children under the age of 18 years.

Initiation into alcohol use at young age is one of the most striking and often found predictors of later problems of alcohol abuse or dependence. For example, in one large community study, participants who first used alcohol before age 15 developed mental and behavioral problems in 51% of the cases (Jernigan, 2002). This means the early use of alcohol is associated with many behavioural problems at later stage in life. It is also estimated that 50% of hospital admissions each year in South Africa such as Foetal alcohol syndrome (FAS), cirrhosis of the liver, head injuries, hypertension, heart difficulties, kidney failures, korsakoff syndrome, personality deterioration, mental disorders, brain damages and motor-vehicle accidents are alcohol-related (Parry & Bennets, 1998). From 1999 to 2001, 139 patients younger than 20 years who were seen at Trauma Units in State Hospitals in Cape and Durban had positive breath of alcohol levels (Parry, *et al*, 2004).

Currently, the 2004 SACENDU‘s report states that the average age of those seeking treatment for alcohol is getting younger and younger each year. 20% of young people between the ages of 10-19 were admitted in Durban’s treatment centres for alcohol as the primary substance of abuse (Rasmoomar & Bhana, 2003).

6.4. Tobacco/cigarettes use.

Apart from alcohol, cigarettes/tobacco is another of the most common substance of use amongst school learners in Alexandra Township. With regard to smoking 54.5% of males and 38.4% of females reported to have smoked cigarettes in the previous month. Smoking of cigarette/tobacco in the study is almost similar to the findings of the other study conducted amongst school learners in Cape Town. The study conducted amongst school learners in Cape Town show that 24% of males and 23% of females reported smoking cigarettes in the previous month (Flisher, *et al*, 1998). The fact is that significantly young school learners are current users of cigarettes. The percentage of school learners smoking cigarettes is at similar rates to the general South African adults, which is 22% (Reddy, 2003). This is cause for concern that school learners are significantly more likely to start smoking at the age of 10. This is in line with other national studies (Rocha-Silva, *et al*, 1996), that cigarette smoking starts between the age category10-12 year-olds. This shows the age at which school learners start smoking is also getting younger and younger. Serious efforts to learn to smoke occur between ages 12 and 13 in most cases and by the age of 16 or 17 many regret their use of cigarettes because they are unable to stop smoking when they want to.

The smoking of cigarette by young school learners could also be linked to the easy access to cigarettes by young school learners despite the current Tobacco Control Act of 1999, which bans sale of cigarettes to minors. This shows that the legislation has not been

properly implemented to prosecute shop owners who are selling cigarettes to children under the age of 18 years. In light of this legislation, there is an urgent need to create awareness of this law and also control selling of cigarettes by the street vendors. The street vendors sell one cigarette at the cost of R1.00 or less. This means accessibility of cigarettes is not a problem to many young school learners countrywide. The Government must introduce a legislation to control selling of cigarettes by the street vendors because in response to Government‘s ban on advertising and high tax, the tobacco industry has turned into illegal ways of smuggling cigarette packs into the country. As a result, the selling of cigarettes by street vendors is alarming.

Furthermore, it seems the tobacco industry has changed ways to attract new young smokers by targeting young people in schools and universities. Tobacco industry’s marketing tactics attract young people through sponsorship of parties, where cigarettes are distributed free of charge (Cunningham, Epp, & Mackay, 1996). They also put misleading descriptors, like “light” and “mild” because these falsely indicate that the smokers will be less harmed (Cunningham, Epp, & Mackay, 1996).

6.5. Frequency use of tobacco/nicotine

In regard to frequency of use of cigarettes, 47.2% of males and 41.2% of females reported that they smoke everyday. This is cause for serious concern for health professionals’ considering that smoking still remains the chief single cause of mouth cancer, lung cancer, cardiovascular disease and other smoking-related illness (Reddy,

2003). The results show that school learners still smoke cigarettes on a daily basis, despite the Tobacco Control Act of 1999, which advocates compulsory warnings on cigarette packs that smoking kills or causes cancer. It seems health warnings appearing on cigarette packs are not effectively working to deter young school learners from smoking. Currently in the study, the number of female smokers is increasing. This is in line with the findings of other international studies, where female smoking is on the increase (Jung, 2001). The survey conducted by Botvin (2003) also shows that a high number of American female teenagers (26%) reported smoking cigarettes on the daily basis. This implies that South African young females are following the worldwide trend of increasing rates of smoking among female population. Why is number of females smoking increasing? They smoke for many reasons as men do: they smoke to enhance social acceptability, to improve self-esteem, or to relieve stress (Cunningham, Epp & Mackay, 1996). But more females than males use smoking as form of weight control (Cunningham, Epp & Mackay, 1996). Future qualitative research studies are needed to explore this assumption amongst South African young females that they smoke to control their weight considering that smoking is associated with various complications during pregnancy. Again Jung (2001) argues that more women may be smoking because more women are working and can afford to smoke. Another reason is that changing social norms made it socially acceptable for women to smoke. Michael (1998) also found female adolescents with mothers and same-sex siblings who smoked were most likely to be smokers. This is because parents serve to be influential in modeling lifestyle behaviours for their adolescent daughters. The relationship between the number of friends who smoke and the initiation of smoking is very strong. A recent study of female

adolescent smoking found those who smoke did so to gain favourable relationships among peers and at school (Michael, 1998).

The fact that so many young school learners continue to smoke cigarettes on a daily basis, means their chances of becoming addicted to nicotine are very high. Usually when young school learners' start smoking cigarettes they believe they will not become addicted. Once addiction takes place, it becomes difficult for many young school learners to stop smoking. In a recent study, nicotine dependence and withdrawal symptoms were present in a third of adolescent smokers by the age 16 (Bruvold, 1993, cited in Panagiotou, 2000). 66.9% of regular smokers have tried to stop smoking but unsuccessfully failed to stop the smoking habit (Flisher *et al*., 1993). Many young school learners continue to smoke despite having attempted to stop and as a result, the habit grows in each successive year. This shows that smoking cessation programmes are now needed for many young school learners in South Africa to stop smoking.

6.6. Cannabis use.

Cannabis is the most common illicit drug of use among South African adolescents (SACENDU, 2003). The results in the study show a high past month prevalence of cannabis use, 36.4% in males and 12.6% in females than school learners in Cape Town 15.8% for males and 6.4% for females (Flisher, *et al*, 2002). In both studies, more males than females reported to have smoked cannabis in the past month. Cannabis is also the most popular illicit drug amongst school learners throughout the world. Similarly, in the

U.S. and Canada, cannabis is the most commonly used illicit drug among school learners (Hartnagel, 1996; Thompson & Walters, 2004). The percentage of high school seniors in the U.S. who reported cannabis use in the past month continues to climb from 23.7% in 1999 to 51.1% in 2003 (Thompson & Walters, 2004). While 44.1% of young Canadians aged 15-24 reported using cannabis in the past month. It appears that the use of cannabis amongst school learners in South Africa is markedly less as compared to 51.1% of adolescents in the U.S. and 44.1% in Canada. This confirms other local studies that even if cannabis is a freely available drug in South Africa, prevalence is far lower than reported elsewhere in other international studies (Flisher, *et al*, 1998).

6.7. Frequency of cannabis use.

With regard to frequency of use of cannabis, 29.9% of males and 6.3% of females reported that they smoke cannabis everyday. This data suggests school learners are regular users of cannabis and this is cause for concern due to the negative psychological consequences associated with the use of cannabis. It is reported that the psychological consequences associated with the use of cannabis include impaired memory capacity, anxiety, brain cell damages, disorientation and hallucinations (DSM-IV, 1994). The daily use of marijuana leads into addiction. Currently, cannabis is the most common primary substance of abuse for patients younger than 20 years in all sites. In Cape Town 57% of patients with cannabis as their primary substance of abuse were coloured, 22% were black and 20% were white. In Gauteng 58% were black and 28% were white (SACENDU, 2004). The high rate use of cannabis is related to its availability and

accessibility. It is easily available and cheap, with a matchbox of cannabis costing approximately R5.00 (Edmonds & Wilcocks, 2000). This affordable price could be linked to its popular use amongst school learners in Alexandra Township.

6.8. Age of first use of cannabis.

In this study the age of the first use of cannabis is 14 years and this is in line with other local studies (Rocha-Silva, *et al*, 1996), which reported the similar finding. The vast majority of school learners mythically believe that smoking of cannabis improves their talents and energy level (Edmonds & Wilcocks, 2000). This information raises the debate about the extent to which cannabis is a "gateway" drug whose usage encourages other forms of more serious illicit drugs.

6.9. Is cannabis a "gateway drug?"

Many drug theorists believe that cannabis is a 'gateway' drug to other more serious drugs, although there is also strong argument against this view (Powers, 1999). More generally, Fergusson and Horwood (1999) suggest that the use of cannabis encourages individuals to experiment with other illicit drugs to determine whether these drugs have similar properties as cannabis. Kandel and Yamaguchi (1993) documented stages of substance use among adolescents. They show that sequence in substance use is cigarette or alcohol, followed by cannabis and then use of other illicit drugs (Kandel & Yamaguchi, 1993). The claim that cannabis use is a gateway to other more illicit drugs is

very controversial. This is because millions of other cannabis users never go beyond this drug (Hanson & Venturelli, 1998). However, some of these cannabis users do progress to use other illicit drugs. In this study, some school learners reported to have used cannabis and other illicit drugs but the sequence pathway of substance use is not reflected because that was not the primary aim of the study. However, it could be possible that the sequence pathway of substance use also exists amongst school learners in Alexandra Township, but further research is needed to explore this aspect. In the study conducted amongst school learners in Cape Town, it has been confirmed that the sequence in substance use exists, which is alcohol or cigarette, followed by cannabis and then other serious illicit drugs (Flisher, *et al*, 2002). The data in this study suggests that progression from cannabis into other illicit drugs seemed to increase with age level. School learners are more likely to use serious illicit drugs from age 14-15 to age 18-21. The practical implication of this finding is that cannabis intervention programmes are needed to prevent school learners who already smoke cannabis from progressing further down in sequence to use other serious drugs (Flisher, *et al*, 2002). This is because the use of mandrax, ecstasy, LSD, and crack cocaine commences after the use of alcohol, cigarette, and cannabis. The findings of the study are consistent with Kandel and Yamaguchi (1993)'s stages of substance use among adolescents.

6.10. Other illicit drug use.

In the study, the use of a mixture of mandrax and cannabis ("white pipes") is gaining popularity amongst school learners in Alexandra Township. With last year 9.1% of males

(12.7% last month) and 4.7% of females (1.5% last month) reported to have smoked "white pipes" (a mixture of mandrax and cannabis). The percentages have increased from last year to last month, especially among males. This is reflected through the increase of young black patients admitted at the treatment centres for a mixture of mandrax and cannabis ('white pipes') as a primary substance of abuse. In Cape Town (29.3%), in Durban (1.9%) and in Gauteng (11.2%) adolescent patients reported a mixture of mandrax and cannabis ('white pipes') as primary substance of abuse (SACENDU, 2004) .This could be linked to an increase in the drug trafficking of mandrax tablets, which are crushed, mixed with cannabis and smoked through a pipe frequently made from a broken-off bottleneck. It is estimated that 2 million mandrax tablets were seized nationally by the South African police in the 2nd half of 2003 (SACENDU, 2003). Mythically, school learners believe 'white pipe' is not dangerous because mandrax tablet is mixed with harmless cannabis, which reduces its negative effects (Edmonds & Wilcocks, 2000). A qualitative research is needed to explore perceptions amongst school learners in Alexandra Township about the use of a mixture of mandrax and cannabis ("white pipes") because this is the limitation of the current study.

Furthermore, the findings of the study suggest that the use of other illicit drugs such as ecstasy, crack cocaine, LSD and heroin is low as compared to other local studies conducted amongst school learners in Cape Town. The study found that last year use of ecstasy was 1.8% in males and 1.5% in females, which is lower than that of school learners in Cape Town (4.3% for males and 3.1% for females) (Flisher, Parry, Evans, Lombard & Muller, 1998). Ecstasy use among coloureds in Cape Town is popular (Parry,

et al, 2004). It is also popular among rave party attendees. In 2000, 74% of respondents in a survey of attendees at a Johannesburg rave club reported to have used ecstasy to enhance their stamina and enjoyment of clubbing (SACENDU, 2002). However, the findings of this study suggest that the use of ecstasy is also spreading in other black communities of South Africa such as Alexandra Township. For both males and females the use of ecstasy has increased from 1.8% last year to 4.1% last month. This confirms Edmonds and Wilcocks (2000)'s observation that the use of ecstasy is moving beyond the clubbing or raving environment to other areas of South Africa. This could be linked to its cost that has decreased considerably between R50 to 30 per unit. As a result, it is becoming reasonably affordable to many school learners (Edmonds & Wilcocks, 2000).

The SACENDU (2004) 's report also noted an increasing number of young black patients in Gauteng who are admitted at the treatment centres for ecstasy as their primary secondary substance of abuse. 2.2% patients abusing ecstasy as a primary substance of abuse was noted in Gauteng. This could also be linked to an increasing drug trafficking of ecstasy tablets in the country. It is estimated that the Police have seized 14700. 000 ecstasy tablets between July—December 2003 in Gauteng only (SACENDU, 2004).

On the use of crack cocaine, the study found a similar last month prevalence rate of 5.5% in males and none in females for crack cocaine for school learners in Cape Town 5.6 % for males and 1.0 % for females (Flisher, *et al*, 1998). The data suggests that the use of crack cocaine is rapidly growing amongst school learners in Alexandra, especially among males as the use of crack cocaine has increased from 1.8% last year to 5.5% last month.

Today crack cocaine is a popularly known as '*rocklefase*' amongst school learners in Alexandra Township. The proportion of adolescents for cocaine-related problems is fluctuating. In Cape Town (11%) and in Gauteng (14%) of adolescent patients reported crack/cocaine either as their most frequently used substance o their second, third or fourth most frequently used substance. In Gauteng crack cocaine was the 3rd most commonly reported drug of use after marijuana and alcohol (SACENDU, 2003). Similarly, in this study crack cocaine was the most commonly used drug amongst school learners in Alexandra Township. This could also be linked to seizures and prices of cocaine powder or crack. In 2004 Pretoria lab reported the largest amount of cocaine seizures (SACENDU, 2004). This means accessibility to crack cocaine is not a problem for many young school learners. According to Edmonds and Wilcocks (2000) cocaine powder or crack has become so readily available in South Africa that its price has dropped considerably, changing from a rich man's drug to one that is accessible to many young school children. A unit (rock) is available for about R 50-00. This affordable price could be linked to 1.1% and 3.3% of males who reported to have smoked crack cocaine in the last year and last month respectively.

In the study**,** 5.4% of males and no females reported to have used heroin, which is almost similar to 6.1% of males and 0.6% of females amongst school learners in Cape Town (Flisher, et.al, 1998). This confirms SACENDU (2004)'s results that in Gauteng and Mpumalanga there has been a dramatic increase in young black patients using heroin as their primary substance of abuse. The cause for concern is that school learners reported some injection use, which puts them at high risk of HIV infection and other blood-borne

diseases through sharing of injection equipments (Parry *et al*, 2004). This indicates a need for intervention that addresses safe injecting practices, including syringe exchange programmes, among young heroin users (Parry, et.al, 2004). In the study, the decrease use of heroin from 5.4% last year to 1.8% last month could be attributed to AIDS awareness campaigns that sharing of injection equipments put individuals at high risk of contracting HIV/AIDS. Future research studies are also needed to explore factors that make females not to engage in injection use of heroin. The results of the current study contradicts the latest SACENDU report (2004), which indicated an increasing number of young females admitted at treatment centres for heroin as a primary drug of abuse. In this study no females who reported to have ever used injected heroin. However, it could be possible that the current study has underestimated the use of heroin amongst school learners in Alexandra Township. Future qualitative research studies are also needed to investigate the use of heroin amongst school learners in Alexandra Township and the risk of HIV/AIDS infection due to sharing of injection equipments.

Lastly, the study suggests that the use of LSD is low amongst school learners in Alexandra Township. LSD is easily available only at entertainment venues, clubs and raves. The low use of LSD amongst school learners in Alexandra could be linked to lack of entertainment venues or clubs in this Township. Usually users tend to take LSD as part of the club scene. It could be possible that accessibility to LSD is not easy amongst school learners in Alexandra Township. In 2004, seizures for LSD were fairly low in all sites, with only the Pretoria Lab reporting over 1000 units seized (SACENDU, 2004). This implies that the low use of LSD amongst school learners in Alexandra Township

could be linked with lack of availability. Again it could be possible that other school learners did not know a drug called LSD because during the administration of the questionnaire some school learners mentioned that it is for the first time they hear of a drug called LSD. As a result, it is possible that the use of LSD might have been underestimated amongst school learners in Alexandra Township. Future qualitative research studies are needed to explore the use of club drugs such as ecstasy, speed, Cat and LSD amongst school learners in Alexandra Township. It could be possible that school learners in Alexandra Township use different names for these club drugs because it seems names of drugs differ from one geographical area to another. Currently, there have been media reports of the increasing availability of a drug popularly known as Tik-Tik amongst school learners in Cape Town. It is also possible that school learners in Alexandra Township have other street names by which these club drugs are referred, but it is only through qualitative research studies that these possibilities might be investigated because it is important to consider the limitations of the current study.

6.11. The limitations of the study

The limitations of the study need to be considered when evaluating the results of this study. Firstly, a limited population of the participants was sampled. Only school learners from one school in Alexandra were sampled. Therefore, the findings may only be applicable to one particular school learners in Alexandra Township. The results cannot be generalized to other school learners in South Africa.

Secondly, one needs to interpret some of the results of the present study with caution, since the instrument used in the study is a self-reporting questionnaire. The instrument touches on sensitive issues such as use of illegal drugs. The fact that many school learners know that it is illegal using those drugs they may have given socially desirable responses. It is also possible that some school learners might have underreported certain aspects of their drug use when answering the questionnaire. Even if anonymity is offered, the respondents may not trust such promises (Jung, 2001). It is true that two participants asked the researcher questions such as, "what are you going to do with this information?" "Are you not a police officer investigating if we are using drugs so that you can arrest us?" Therefore this could imply that some school learners may have falsified some of their answers. They might have concealed more precise information about the use of illicit substances. Self-reporting measures have always been criticized as subjective and apt to be inaccurate or falsified in some context (Jung, 2001).

It is also important to mention the limitations of specific items in the questionnaire. The school learners were asked: "have you ever smoked tobacco last year and past month"? The study does not say anything regarding types of cigarettes. It is reported in other studies that males and females prefer different types of cigarettes (Jung, 2001). Women tend to smoke filtered cigarettes (Jung, 2001). In terms of frequency, many school learners reported that they smoke cigarette everyday but when asked about the total number of cigarettes they smoke everyday, most of them did not know. Cigarettes are typically smoked throughout the day and smokers usually do not count the number of cigarettes smoked daily (Jung, 2001). Another limitation of the study is that school

learners were also asked: “have you ever used alcohol last year and last month”?. The study does not say anything regarding the types of alcoholic beverages. It is reported in Rocha-Silva (1998) survey that ordinary beer and distilled spirits seem to have been the most commonly used alcoholic beverages among males, while ciders and wines are commonly used among females. Other teenagers also reported to have used home-brewed liquor while attending traditional ceremonies (Rocha-Silva, *et al*., 1996). These issues are not reported in the present study to compare preferred alcoholic beverages in terms of gender. This is attributed to the limitation of the questionnaire used in the study. Furthermore, the school learners were asked: “have you ever injected with an illegal drug such as heroin”? School learners who snorted or smoked heroin but never injected heroin may have had difficulty in responding to this question. As a result, the use of heroin might have been understated in the study. The results should therefore be interpreted with caution.

Although it is important to consider these limitations, the present researcher believes that the results of the study make a greater contribution in the understanding of the prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township

Chapter 7: Implications of the findings.

Despite the limitations, the study produced valuable information which has theoretical, practical and clinical implications for the research and treatment of alcohol and other drug use amongst school learners in South Africa.

7.1. **Research implications**

There is paucity of national surveys aimed at determining the nature and the extent of alcohol and other drug use amongst South African school learners. The study added valuable information on the prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township. The implications of these findings suggest that large annual surveys are needed to monitor the prevalence of alcohol and other drug use amongst school learners in South Africa. It is important that other large national surveys are conducted on yearly basis to monitor the changing patterns in alcohol and other drug use amongst school learners in South Africa .The results of these national surveys may have implications for policy-makers and researchers to design, implement and evaluate intervention programmes to combat the scourge of alcohol and other drug use amongst school learners in South Africa. Furthermore, the present study also adds to the existing body of literature sources and knowledge in terms of the statistics measuring the prevalence of alcohol and other drug use amongst school learners in South Africa.

Future research projects are also needed in collaboration with other African countries to

determine the prevalence rates of alcohol and other drugs in Africa. The purpose of such research project would be to ensure that African researchers and academics share skills and experiences in primary or secondary prevention strategies of substance use among young school learners because currently there is no information about the extent of alcohol and other drug use among young people in Africa. There is a need to work together to develop comprehensive and coordinated approaches including prevention, education, law enforcement, and treatment in addressing problems of the use of alcohol and other drugs among young people. The present study shows a need for African academics to work together to determine the prevalence rates of alcohol and other drug use among young people in Africa.

7.2. **Practical implications.**

The practical implication of the current study is that those involved in prevention strategies need to extend their interventions among primary school learners because the results of the study suggest that the use of substances starts at an early age. Delaying drug use might be useful even if entirely preventing the abuse of drugs may be difficult to achieve. There is growing evidence that drug abuse prevention should start in primary schools to influence behaviours and attitudes. Such intervention programmes should be age-appropriate to prevent and equip young school learners with various life skills to reduce their chances of using alcohol and other drugs. These interventions should be incorporated as part of a general life-skills education because it has been proven from other research studies that “scare tactics or once off education sessions” are largely

ineffective in reducing the risks of substance use in schools (Frank & Fisher, 2004). There is general agreement that educational programmes on their own are not effective (Morojele, 1997). Successful psychosocial approaches to substance use prevention include components dealing with life skills such as resistance skills, communication skills, assertiveness, decision-making skills and problem-solving skills to reduce the risk of substance abuse amongst school learners (Frank & Fisher, 2004). A number of factors also influence the success of prevention programmes for young school learners. For example, it is important to ensure that many of these programmes are peer-led to ensure effectiveness (Morojele, 1997). The active participation of young people can make a difference in drug prevention initiatives. However, peer-led interventions should be planned carefully to ensure peer educators are carefully selected and equipped with teaching and other skills (Morojele, 1997).

It is also important that teachers should receive training on substance use as this may be the best opportunity for preventing future substance use amongst school learners in South Africa. Currently, it seems teachers are not trained to deal with problems of substance use within schools. The current study implies that teachers may play a vital role if empowered with skills to sensitively identify and refer school learners who are using substances to relevant rehabilitation centres such as SANCA, LIFELINE, and HOUGHTON house. Teachers should be trained to be able to recognize school learners with signs of alcohol and other drug use and deal with these learners in a non-judgmental way. Detection and early intervention by school teachers may greatly reduce alcohol and other drug use amongst school learners. The training of teachers should include how to

recognize signs of alcohol and other drug use and where to refer learners identified as needing treatment and rehabilitation. Schools also need appropriate policies for dealing with drug problems to help school learners who use alcohol and other drugs.

7.3. **Treatment or clinical implications**

The present study has implications for clinical/ counseling practice as information is provided regarding use of substances amongst young school learners in Alexandra Township. The clinical implication of the current study is that accessibility to substance abuse treatment facilities is needed, especially for young black school learners in previously disadvantaged areas such as Alexandra Township. Such treatment programmes should be tailored to meet the needs of young school learners. Currently, there is a paucity of youth-orientated substance rehabilitation programmes. The current rehabilitation programmes concentrate on the needs of adults. It is only Houghton House that has recently introduced an Adolescent Outpatient Programme, which is tailored to assist the young adolescents to live a life free of substances. It is important that these kinds of programmes are introduced in schools and other impoverished communities to help school learners to stop using regular substances such as tobacco, alcohol and marijuana and other illicit drugs such as LSD, crack, ecstasy and heroin.

It is also important to introduce specific treatment programmes at schools. The results of the study show that many school learners smoke cigarette on a daily basis. This means smoking cessation programmes are needed in schools to help school learners stop

smoking habit, especially those who wish to stop smoking.

Treatment programmes specifically directed at dagga use are also needed because many school learners in the study reported that they smoke marijuana on a daily basis. The main aim of these programmes is to help school learners to cope with withdrawal symptoms of craving, irritability, anxiety, stress and depression. Generally, this study implies that there is a need to do something urgently to help many young school learners to stop using drugs and maintain healthy lifestyles.

7.4. **Educational implications**

The training of psychology students should include a module to teach and prepare training students to know the psychological problems associated with the use of alcohol and other drugs. This may be useful in empowering students with new skills and treatment approaches to work with young school learners addicted to various substances. It is also important for psychology students to realize that many psychological problems such as mood disorders, aggression, stress, poor achievement at work, and school, and problems related to physical health and illness etc., are related to alcohol and other drug use. The specialized training should be included into existing postgraduate Masters training courses to empower students with theoretical knowledge and clinical skills related to understanding, assessing and treating clients with drug dependency. To be most effective, it would be useful to ensure that training programs have practical components for students to work in rehabilitation centres to put their skills into practice and extend

drug rehabilitation services in previously disadvantaged areas such as Alexandra Township. The current training is not enough to prepare students to become qualified and competent practitioners to work in the field of alcohol and drug dependency. Students are not trained in the treatment of alcoholism or drug addiction, and to work with already chemically dependent patients.

7.5. **Policy implications.**

It seems that despite laws such as Alcohol Liquor Act (1999) and Tobacco Control Act (1999), school learners are not prevented to buy these substances even when they are under age. In light of these findings, the implication is that there is an urgent need to regulate selling of cigarettes and alcohol to minors because many school learners reported early ages of smoking cigarette and drinking alcohol. Advocacy and lobbying are needed to prosecute and enforce legislations for licensing of liquor outlets and selling of cigarettes and alcohol to young school learners. Shop owners who disobey these laws must be forced to pay exorbitant fees. According to Parry (2001) local authorities must be legally empowered to shut down unlicensed liquor outlets and enforce liquor trading hours and age restrictions.

There is research evidence that the Tobacco product Control Act of 1999, which forbids tobacco advertising, promotion and sponsorship, as well as restriction of smoking in public places has slightly reduced smoking by 4% (Department of Health, 2004). This means that researchers also need to lobby for banning of alcohol advertisements on TV

screens. Alcohol advertisements on TV screens undermine the efforts to communicate health promotion messages to young people. Drinking on the adverts is glamorized and associated with success and happiness. The results of this study should be used to advocate for banning of alcohol advertisements and sponsorship of Rugby team and Castle Premier Soccer League. It seems that the alcohol industry is making billions of rand out of sponsoring sports events and political rallies or parties. The link of alcohol use with all forms of sport and entertainment, gives a clear message to young people that to have fun you need alcohol (Hope, 2004). It is against this background that the results of this study are imperative for lobbying purposes to ensure that alcohol advertisements are banned on TV screens.

7.6. **Community implications**

Alcohol and other drug use should be tackled as a broader community issue, as it is evident that many school learners learn about the use of alcohol and other drugs from other members of the community. To tackle this problem, community members must be involved in awareness campaigns to ameliorate risk-factors that put school learners at high risk of alcohol and other drug use. It must be noted that the programmes that exclude wider adult population are doomed to failure. According to Parry (2001) community action programmes serve as mechanisms for providing information to community members and for shaping community attitudes, values and norms about alcohol and other drug use. They also provide a context for advocacy and lobbying to pressurize local and provincial authorities into restricting the number of liquor outlets in

the area, and also support police interventions to deal with drug dealers in the community.

The public debate is also needed for community members to talk about issues relating to alcohol and drug use. The debates should not only be confined to the academics and professors in the Universities, but should also involve NGO's from the grass-roots level, including young people to get their suggestions on policy decisions.

The training of Non-governmental organizations (NGO's) members is also vital to raise awareness of some issues linked to substance use in their communities, existing referral agencies and how they may take action against substance use in their communities.

7.7. Future research topics.

The present study has primarily focused on the prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township. The limitations of the study have been mentioned. Therefore, it is suggested that future research topics are needed in the following areas:

- Qualitative study of drug use amongst school learners in Alexandra Township;
- Investigate an increase use of club drugs (e.g. ecstasy, LSD, speed and Cat) in predominantly black areas such as Alexandra Township;
- Prevalence rates use for home-brewed liquor amongst school learners in Alexandra Township and other areas of South Africa;
- The relationship between substance use and sexual risk behaviours amongst school learners in Alexandra Township;
- Risk-taking behaviours of teenagers who dropped-out of school;
- The use of substances amongst HIV/AIDS patients;
- The relationship between trauma and substance use;
- The use of over-counter medication amongst school learners in Alexandra Township;
- Qualitative study to explore if young South African female teenagers smoke cigarette to control weight.

8. Conclusion.

In conclusion, the current study has contributed to knowledge by producing the prevalence data for alcohol and other drug use amongst school learners in Alexandra Township. Data on the prevalence rates are important to determine the changing patterns in alcohol and other drug use. It is evident that alcohol, tobacco, and dagga are the most commonly substances than other illicit drugs. Future longitudinal research studies are needed to monitor the extent, changing patterns and types of drugs used among school learners in Alexandra Township in order to implement effective substance prevention programmes aimed at young school learners.

The results of the study also conclude that there is no significant gender difference between males and females regarding substance use and the age of commencing use of substances. Those involved in drug awareness campaigns need to be aware of these findings in order to render effective prevention services amongst school learners in Alexandra Township and other parts of South Africa. It is also important that those involved in drug awareness campaigns also extend their interventions among young primary school learners to prevent them from using alcohol and other drugs because the results of the study indicate that the use of substances starts at an early age amongst school learners in Alexandra Township.

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Appendix I: Information sheet

Hello, my name is Langa Malose, doing Masters in Community-based Counseling Psychology at University of Witwatersrand. As part of Masters, I am required to complete a research project. My research interests lies in the area of working with school learners, especially from disadvantaged areas like Alexandra Township. I work with school learners in career counseling and life-orientation programmes in assisting high school learners in make good career choices and also understand the impact of substance use on their academic performance. Today professionals are very concern about the use of substances amongst school learners. Therefore, my research project wants to investigate prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township. The researcher will use a questionnaire, mostly requiring 'yes' or 'no' answers. The questionnaire will take 30 minutes to complete. Please be aware that in the study, you are not forced to participate in the study. There will be no negative consequences, for you, if you decide not to participate or decline to answer certain questions. In addition, there will no negative consequences for withdrawing from the study. Your confidentiality is guaranteed, as you will not be asked to indicate your name or surname on any part of questionnaire because all information collected is strictly confidential. I therefore invite you to take part in this research project.

Your co-operation will be highly appreciated.

Thank you
Langa Malose.

_____

Appendix II: Informed consent

Study title: Prevalence rates of alcohol and drug use amongst school learners in Alexandra Township.

My name is Langa Malose, doing Masters in Community based- counseling psychology at Wits University. As part of Masters, I am required to complete a research project. Therefore, my research project wants investigate the prevalence rates of alcohol and drug use amongst school learners in Alexandra Township. I would like to request your informed consent to participate in the study. Please be aware that your participation. You are not forced to participate in the study. Your identity will remain anonymous, as neither your name nor your address will be included in the study.

I have read this form and voluntary agree to take part in the study.

Signature

_____

Appendix III: Consent form for school principal

I _____ school principal of _____ agree that Langa Malose, a registered Masters psychology student, registered with WITS University, will conduct a research study at our school to investigate the prevalence rates of alcohol and other drug use amongst school learners in Alexandra Township.

As school principal I have read the information sheet and allow research study to take place at our school.

Signature

_____

Appendix IV: Questionnaire.

This questionnaire is concerned with the use of cigarette, alcohol, and other drugs.
Dipotsiso tse di latelago di mabapi le go kgoga motsoko, go fola sekerete, go nwa bjala le dinotagi.
Please answer ALL questions by making a cross(x) in the appropriate square of your choice.
Araba dipotsiso kamoka, ka go bea leswao la (x) ka mo lesakaneng.

1. What is your sex? Male ☐ Female ☐

   O mong? Mosimane Mosetsana

2. How old are you? _____ years

   O na le megwaga e mekae?_____ megwaga

3. Indicate grade level that you are currently in. _____ grade.

   O mo mphatong ofe?_____

USE OF SUBSTANCES

Cigarette:

4. Have you ever smoked a cigarette?

   A nkile wa kgoga sekerete/kwaye/cigarrete? Yes ☐ No ☐

   Eng Aowa

IF YES:

GE EBA ENG:

5. How old were you when you smoked a cigarette for the first time? _____ years

   O be o na le megwaga e mekae ge o kgoga sekerete/cigarrete? _____ megwaga.

6. Last year have you smoked a cigarette?

   Ngwaga o fetilego nkile wa kgoga sekerete/cigarrete? Yes ☐ No ☐

   Eng Aowa

7. Last month have you ever smoked? Yes ☐ No ☐

   Eng Aowa

   Mo kgweding ye e fetileng, o nkile wa kgoga sekerete

9. How frequently do you smoke cigarettes? Please make a cross (x) in the box provided.

O tsoba cigarette ga kae? Araba potsiso kamoka, ka go bea leswao la (x)

Everyday ☐ Once a week ☐ only when I'm drinking ☐ Once a month ☐

Ka mehla Ga tee ka beke Ge ke nwa bjala fela ka tee mo kgweding

ALCOHOL:

BJALA:

10. Have you ever used alcohol.

A nkile wa nwa bjala (Biri) Yes ☐ No ☐

Eng Aowa

IF YES:

GE EBA ENG:

11. How old were you when you used alcohol for the first time? _____ years

O be o na le megwaga e mekae ge o enwa biri/bjala la mathomothomo? _____ megwaga.

12. Last year have you drunk alcohol?

Ngwaga o fetilego nkile wa nwa bjala? Yes ☐ No ☐

Eng Aowa

13. Last month have you used alcohol?

Kgwedi ye e fetilego nkile wa nwa bjala? Yes ☐ No ☐

Eng Aowa

14. Last month, on days you drink, how many beers did you drink?

_____ beers/ciders

Mo kgweding ye e fetileng, ge o e nwa o nwa biri tse kae? _____

15. How frequently do you drink alcohol? Please tick cross (x) in the box provided.

O nwa bjala ga ka kang? Araba potsiso kamoka, ka go bea leswao la (x)

Everyday ☐ On weekends only ☐ On Christmas, New Year, and Good Friday ☐

Ka mehla Ka weekend fela Ka christmase le New Year

Once a month ☐ Less than once a month ☐

Ga tee mokgweding Kgwedi yeo e fetilego

DAGGA/ZOL/GANJA/WEED:

PATSE:

17. Have you ever used dagga/zol?

A nkile wa kgoga lebake/ganja/matekwane/patse/zol? Yes ☐ No ☐

Eng Aowa

IF YES:

GE EBA ENG:

18. How old were you when you smoked dagga/zol for the first time? _____ years

O be o na le megwaga e mekae kgoga patse/matekwane/ganja?_____megwaga.

19. Last year have smoked dagga/zol/ganja?

Ngwaga o fetilego nkile wa tsoba patse/matekwane/zol Yes ☐ No ☐

Eng Aowa

20. Last month, have you smoked dagga/zol?

Kgwedi e fetilego nkile wa kgoga zol/ patse/ ganja? Yes ☐ No ☐

Eng Aowa

21. Last month, on the days you smoked dagga, on average how many rolls of dagga do you smoke per day? _____ rolls of dagga

Na o kgoga zol/patse tse kae ka letsatsi? _____ dipatse

22. How frequently do you smoke dagga/zol/ganja? Please tick cross (x) in the box provided.

O tsoba dagga/zol/patse ga kae? Araba potsiso kamoka, ka go bea leswao la (x)

Everyday ☐ On weekends only ☐ Only when I'm drinking ☐

Ka mehla Ka weekend fela Ge ke nwa bjala

DAGGA AND MANDRAX (WHITES PIPES):

BOTTLE COP:

23. Have you ever smoked dagga and mandrax together ("white pipes")

A nkile wa kgoga lebake le mandrax di hlakane ("white pipes", "buttons")?

Yes ☐ No ☐

Eng Aowa

IF YES:

GE EBA ENG:

24. How old were you when you smoked dagga and mandrax together for the first time? _____ year

O be o ana le megwaga e mekae ge o kgoga lebake le mandrax di hlakane?_____ megwaga

25. Last year have smoked dagga and mandrax?

Ngwaga o fetilego nkile wa tsoba lebake/patse le mandrax di hlakane

Yes ☐ No ☐

Eng Aowa

26. Last month, have you smoked dagga/zol and mandrax?

Kgwedi e fetilego nkile wa kgoga zol/ patse le mandrax di hlakane Yes ☐ No ☐

Eng Aowa

CRACK COCAINE:

31. Have you ever used crack cocaine?

A nkile wa somisa drugs ye e bitswago crack cocaine? Yes ☐ No ☐

Eng Aowa

IF YES:

GE EBA ENG:

32. How old were you when you used crack cocaine for the first time?_____ years

O be o le megwaga e mekae la mathomo-thomo ge o somisa crack cocaine la mathomo?_____ megwaga.

33. Last month, did you ever used crack cocaine?

Mo kgweding e fetileng o ile wa somisa crack cocaine? Yes ☐ No ☐

ECSTACY:

35. Have you ever used Ecstasy?

A nkile wa somisa drugs ye e bitswago Ecstasy? Yes ☐ No ☐

Eng Aowa

IF YES:

GE EBA ENG:

36. How old were you when you used Ecstasy for the first time? _____ years

O be o le megwaga e mekae la mathomo-thomo ge o somisa Ecstasy la mathomo? _____ Megwaga.

37. Last year, did you ever use Ecstacy?
Ngwaga o fetilego, nkile wa somisa Ecsatcy Yes ☐ No ☐
Eng Aowa

38. Last month, on how many days did you use Ecstasy?_____ days

Mo kgweding ye e fetileng, ke matsatsi a kae ao o somisetseng Ecsatcy?_____

LSD:

39. Have you ever used any other illegal drug, such as LSD?
A nkile wa somisa e nngwe ya dinotagi bjale ka LSD Yes ☐ No ☐
Eng Aowa

40. Last year, did you ever use LSD?
Ngwaga o fetilego, nkile wa somisa LSD Yes ☐ No ☐
Eng Aowa

41. Last month, did you ever use LSD?

Mo kgweding ye e fetileng, nkile wa somisa LSD Yes ☐ No ☐
Eng Aowa

HEROIN:

42. Have you ever injected any illegal drug such as heroin?

A o kile wa itlhaba ka ye ngwee ya ditifatse tse seng molaong bjalo ka heroine.
Yes ☐ No ☐
Eng Aowa

43. How old were you when you injected heroin for the first time? _____ years

O be o le megwaga e mekae la mathomo-thomo ge o somisa heroine la mathomo? _____ Megwaga.

44. Last year, did you ever inject any illegal drug such as heroin?
Ngwaga o fetilego, nkile wa somisa heroine? Yes ☐ No ☐

Eng Aowa

45. Last month, did you ever inject any illegal drug such as heroin?

Mo kgweding ye e fetileng, nkile wa somisa heroine ? Yes ☐ No ☐

Eng Aowa

Should you or someone you know need help or to know more about drugs and treatment you can contact the following resources centres:

Bao ba nyakago thuso mabapi ditifitse ba ka leletsa dinomoro tse di latelago:

SANCA (011) 917-5051

PHOENIX (011) 837-0634