

**INCIDENCE AND EXTENT OF SUBSTANCE ABUSE AMONG
SECONDARY SCHOOL STUDENTS IN NAIROBI PROVINCE,
KENYA: IMPLICATIONS FOR SPECIALISED INTERVENTION**

BY

MADRINE KING'ENDO

E83/11285/2006

**A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY (PhD) IN THE SCHOOL OF EDUCATION,
KENYATTA UNIVERSITY**

OCTOBER, 2010

DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature: _____ Date: _____

**Madrine King'endo
Department of Special Needs Education
Kenyatta University**

This thesis has been submitted with our approval as University supervisors.

Signature: _____ Date: _____

**Dr John Mugo Kabutha P.hD
Senior lecturer
Department of Special Needs Education
Kenyatta University**

Signature: _____ Date: _____

**Dr Kisilu Kombo P.hD
Senior lecturer
Department of Educational Foundations
Kenyatta University**

DEDICATION

I dedicate this thesis to my parents whose inspiration, determination and encouragement has made me achieve this goal.

ACKNOWLEDGEMENT

Several people, in various ways, have influenced the journey this thesis has taken to become what it is. I will not list the names of them all but will pay special thanks to all of them.

My sincere gratitude goes to my supervisors, Dr. John Mugo and Dr. Kisilu Kombo for the intellectual leadership and innovative ideas they shared with me throughout this study. Special thanks go to Prof. Nwoye for his proficient advice and materials resourced during the formation phase of this study.

I owe a lot to friends whose insights have been instrumental in my choice of this study. Such people include, Tyson Gitonga, Patrick Kyunguti, John Gacivih and Rosemary Njura just to name a few.

I thank Kenyatta University administration for supporting me financially during the process of my work. It would have been difficult without the service of the University resources and support.

To the Ministry of Education headquarters, I wish to thank you greatly for giving me a research permit to facilitate my research. I am also indebted to all the principals and teacher/counsellors of all the public schools in Nairobi, for their assistance and cooperation during my data collection. I also thank all those persons who have assisted me in many different ways to the completion of my thesis.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF ABBREVIATIONS	xi
ABSTRACT	xii
CHAPTER ONE: INTRODUCTION	16
1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Purpose of the Study	7
1.4 Objectives of the Study	7
1.5 Research Hypotheses	8
1.6 Significance of the Study	8
1.7 Scope and Limitations of the Study	9
1.8 Theoretical Framework for the Study	9
1.9 Conceptual Framework for the Study	13
1.10 Operational Definition of Terms.....	14
CHAPTER TWO: LITERATURE REVIEW	16
2.1 Introduction	16
2.2 Extent of Drug and Substance Abuse	16
2.3 Literature on Prevalence of Substance Abuse	21
2.4 Previous Studies on Substance Abuse among Students.....	24
2.5 Studies on Possible Factors Associated with Substance Abuse Among	29
Adolescents.....	29
2.5.1 Prenatal Drug Exposure	29
2.5.2 Cultural and Religious Reasons.....	30
2.5.3 Leisure and Pleasure, and Peer Pressure	30
2.5.4 School Failure and Curiosity	31
2.5.5 Family Background and Conflicts in Schools	32
2.5.6 Mass Media Influence	33
2.5.7 Availability	33
2.6 Previous Studies on Behaviour Related to Drug and Substance Abuse.....	34

2.7	Summary of Literature Review	35
CHAPTER THREE: RESEARCH METHODOLOGY		37
3.1	Introduction	37
3.2	Research Design	37
3.2.1	Variables of the Study	37
3.3	Location of the Study	38
3.4	Target Population.....	40
3.5	Sampling Procedures and Sample Size	40
3.6	Research Instruments	43
3.7	Pilot Study	44
3.8	Validation and the Reliability of the Instruments	45
3.9	Data Collection Procedures	46
3.10	Data Analysis Techniques and Testing Hypotheses	47
CHAPTER FOUR: PRESENTATION AND DISCUSSION OF FINDINGS		48
4.1	Introduction	48
4.2	Demographic Characteristics of the Students	48
4.2.1	Distribution of students by age	48
4.2.2	Distribution of the students by gender	49
4.2.3	Distribution of secondary schools by category	49
4.2.4	Types of public schools in Nairobi Province	50
4.2.5	Categories of students who participated in the study.....	51
4.2.6	Students' family environment	52
4.3	Types of Drugs and Substances Abused by Students	53
4.3.1	Drugs and substance abuse among students	53
4.3.2	Drugs and substances abused in secondary schools	55
4.4	Reasons for Abusing Drugs and Substances	56
4.5	Awareness of drug abuse by the students	58
4.6	Linkages Between Study Variables	59
4.6.1	Association between class levels and drug abuse.....	59
4.6.2	Drug and substance abuse among friends in schools	59
4.6.3	Drug and substance abuse among friends across the classes	61
4.6.4	Drug abuse and Gender	62
4.6.5	Drug abuse and students' age	62
4.6.6	Frequency of drug abuse among students	63

4.6.7	Substance Abuse and bullying behaviour in secondary schools.....	65
4.6.8	Drug abuse in relation to pocket money.....	65
4.6.9	Problems linked to pocket money and drug abuse among students.....	65
4.6.10	Implications of drug and substance abuse on students' education and... health.....	66
4.6.11	Knowledge and awareness of drug abuse signs.....	67
4.6.12	Knowledge about the effects of drug abuse among students.....	68
4.6.13	Counselling programs on drug abuse in secondary schools	68
4.7	Testing the Hypotheses of the Study	69
4.7.1	Relationship between drug abuse and the categories of secondary schools	70
4.7.2	Relationship between drug abuse and the status of the schools	72
4.7.3	Relationship between drug abuse and the types of the schools	75
4.7.4	Relationship between drug abuse and students' family background	77
4.7.5	Relationship between drug abuse and failure at school.....	78
4.7.6	Relationship between drug abuse and peer pressure.....	80
4.8	Implications for School Interventions	85
4.8.1	Implications of drug abuse on students.....	86
4.8.2	School interventions.....	87
CHAPTER FIVE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS		89
5.1	Introduction.....	89
5.2	Summary of the Study.....	90
5.2.1	Various substances commonly abused by students.....	90
5.2.2	Prevalence of substance abuse in secondary schools in Nairobi	91
5.2.3	Factors that contribute to substance abuse among secondary school	91
	students.....	91
5.2.4	Identify students' behaviour which were related to substance abuse	92
5.3	Conclusion.....	93
5.4	Recommendations.....	95
5.4.1	Policy formulation and implementation.....	97
5.4.2	Practise on drug abuse rehabilitation.	97
5.4.3	The school curriculum.....	98
5.4.4	Secondary and tertiary prevention	98

5.4.5	Urgent need to consider students with drug addiction disorder as special..	99
	needs students	99
5.4.6	Involvement of all the stakeholders in looking for a workable solution	99
5.5	Suggestions for Further Research	99
	REFERENCES	101
	APPENDIX A: QUESTIONNAIRE FOR STUDENTS	105
	APPENDIX B: QUESTIONNAIRE FOR TEACHER/COUNSELLOR	109

LIST OF TABLES

Table 2.1: The variation in the use of drugs.....	22
Table 2.2: Prevalence and risk ratios	22
Table 2.3: Substances commonly abused by students and non-students	22
Table 3.1: Public secondary schools in Nairobi Province	39
Table 3.2: Types and status of public schools in Nairobi province	41
Table 3.3: Selected schools	41
Table 3.4: Sampling frame	43
Table 3.5: Pilot sampling frame	45
Table 4.1: Students by age in the sampled schools	48
Table 4.2: Schools by type (Day/Boarding).....	51
Table 4.3: Students who participated by classes	51
Table 4.4: People living with students	52
Table 4.5: Teachers' report of students experience of drug and substance abuse..	54
Table 4.6: Teachers' report on students' drug abuse	54
Table 4.7: Abuse of drugs and substances in secondary schools	56
Table 4.8: Reasons for drug abuse according to the students and teachers'.....	58
report of students' experience on drug abuse	57
Table 4.10: Class and drug abuse among students	61
Table 4.11: Drug abuse and Gender among students	62
Table 4.12: Drug abuse and students' age	63
Table 4.13: Drug abuse occurrence among students	64
Table 4.14: Problems resulting from students' pocket money and drugs.....	66
Table 4.15: Health problems associated with drug abuse	67
Table 4.16: Knowledge about effects of drug abuse on students	68
Table 4.17: Relationship between school category and drug abuse among.....	71
classmates	71
Table 4.18: Relationship between school category and drug abuse among friends	72
Table 4.19: Relationship between status of the schools and drug abuse among....	73
Classmates.....	73
Table 4.20: Relationship between status of the schools and drug abuse among....	74
students	74
Table 4.21: Relationship between types of the schools and drug abuse among ...	75
students	75
Table 4.22: Relationship between types of the schools and drug abuse among ...	76
Students.....	76
Table 4.23: Analysis of students' family background against various responses ..	77
Table 4.24: Analysis of students School problems against various responses	79
Table 4.25: Students who abuse drugs due to peer pressure	81
Table 4.26: Analysis of students who abuse drugs by availability of drugs	83
Table 4.27: Analysis of drug abuse and students' behaviour	84

LIST OF FIGURES

Figure 1.1: Relationships between addiction factors	11
Figure 1.2: Relationship among the independent, dependent and intervening .. variables	13
Figure 4.1: Schools by category	50
Figure 4.2: Linkage between class and drug abuse	59
Figure 4.4: Frequency of drug abuse	64
Figure 4.5: School drug prevention program	88

LIST OF ABBREVIATIONS

Abbreviations	Full Name
AOD	Alcohol and Other Drugs
ADF	Australian Drug Foundation
CAHRU	Child and Adolescent Health Research Unit
CDCP	Centre for Disease Control and Prevention
DNA	Drug Nexus in Africa
DPA	Drug Policy Alliance
ICDS	International Community and Drug and Substance Abuse
NACADA	National Agency for Campaign Against Drug Abuse
NDSHS	National Drug Strategy for Household Survey
NHS	National Housing Survey
NSDU	National Survey on Drug Use and Health
SAMRC	South Africa's Medical Research Council
SPSS	Statistical Package for Social Sciences
UN	United Nations
UNDCP	United Nations Drug Control Program
WHO	World Health Organization
YRBSS	Youth Risk Behaviour Surveillance System

ABSTRACT

Substance abuse has become a major challenge in secondary schools in Kenya. A study carried out in Kenya observed that 20% of adolescents aged between 12 and 22 years smoke cigarettes, 9% smoke bhang while 23% drink commercial beer and spirits. This is the age in which most youths are in schools and colleges. The aim of this study was to find out the incidence and extent of drug abuse among secondary school students in Nairobi Province, Kenya. This information is useful in developing specialized educational programs for drug abuse in Kenya. The objectives of this study were: to determine various substances commonly abused by students, assess the prevalence of substance abuse in secondary schools, determine the factors that contribute to substance abuse, students' behaviour related to substance abuse and identify the factors that influence students to abuse drugs. An ex-post-facto research design was employed. The study population comprised of all public secondary schools in Nairobi Province. The sampling was done using stratified sampling to obtain different categories of schools, and the status of each school. The schools were chosen from the strata using purposive and simple random sampling methods. Systematic sampling was then applied to obtain the required number of students, where every tenth student from the admission register was selected. One counselling teacher from each sampled school was selected to participate in the study. The total number of respondents was 525 students and 14 counselling teachers. A separate questionnaire for students and another one for counselling teachers were used to collect data. The instrument's validity and reliability was enhanced through a pilot study in two schools within the province and were not included in the main study. Face validity and content validity was used by the researcher engaging colleagues and experts in the school of education. The questionnaires were administered to the respondents by the researcher assisted by four research assistants. The research began after obtaining a research permit from the Ministry of Education. The data obtained was coded and analysed using the SPSS programme for windows. The statistics used for this exercise were mainly percentages, pie charts and bar graphs. However, the stated hypotheses were tested by the use of the chi square. The key findings showed that peer pressure, school and family stress, and drug availability contributed to students' drug abuse. It was also found that alcohol was the most abused drug, that boys abused drugs more than girls and that drug abuse was more prevalent in mixed schools than the other categories of schools. The study also found that most students, 81%, who abused drugs did this often. The study concludes that stringent measures should be put in place urgently so as to address the problem of drug abuse. The study recommends a multifaceted approach as a strategy for minimizing the vice in the Kenya secondary schools.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Substance abuse, and HIV and AIDs epidemic are some of the major challenges of the 21st century. Substance abuse has been considered a global epidemic, (McCabe, Boyd and Teter, 2009). Studies and statistics show that globally more preadolescence and teenage children are using drugs and alcohol (Australian Drug Foundation [ADF], 1999). Substance abuse most often begins in early adolescence because of social economic problems and cultural practices of this age group (Kandel & Chen, 1995). Long term studies of substance abuse have observed that the sequence of use runs from tobacco, alcohol, marijuana and to other substances.

During International Day against Drug Abuse and Illicit Trafficking of 26th June 1988, the then United Nations' Secretary General, Javier Peres de Cuellar, noted that drug and drug trafficking had already claimed millions of lives, weakened national economies, undermined the integrity and stability of governments and endangered the human society as a whole. He remarked that the dimensions of such a crisis were painfully clear and that drug - related crimes had reached alarming proportions. In such a global epidemic, he concluded, all nations were vulnerable (United Nations, 1988).

Similarly, on 26th June 1992, during the International Day against Drug Abuse and Illicit Trafficking, the then United Nations Secretary General, Boutros Boutros Ghali observed that drug abuse had escalated dramatically, and that most drug abusers were young, poor or both. In particular, he noted that there was an upsurge in crime and

corruption, draining of human, financial and other resources among Nations which would have otherwise been used for socio-economic development. This, he concluded, had resulted in destruction of individuals, families, communities and Nations, as well as in the spread of HIV and AIDS (United Nations, 1992).

Tobacco use among young people has been growing steadily all over the world. By 1986, an estimated one billion people smoked about five trillion cigarettes annually. In the 1990's, the World Health Organization (WHO) estimated that the global death toll from tobacco-related diseases had reached over three million annually. Out of this, two million had been dying annually from the predominantly industrial countries whereas one million was from the developing states. In the industrialized countries, the number of deaths attributed to smoking had risen from 700,000 in 1965 to 1.5 million in 1992 for males, and from 100,000 to 500,000 for females. In developing countries, the per capita cigarettes consumption has risen on average by 70% in about 25years, an indication that over 7 million deaths per year would occur, (United Nations, 1993).

For instance in South Africa, people change their hard drugs habit but the fall - out from substance abuse remains the same and includes destruction of lives, families and communities. This has raised concern about the spread of HIV and AIDS. Heroin, cocaine and methamphetamine abuse have risen substantially in the past few years while the use of mandrax has dropped significantly.

In Kenya, substance abuse has become an issue of great concern just like the rest of the countries in the world. A country-wide needs assessment study undertaken in

1994 by the Government of Kenya and the United Nations Drug Control Programme revealed that drug abuse has permeated all strata of Kenyan society, the youth and young adults being the most affected groups (Mwenesi, 1996). Clearly, this study has eschewed a detailed analysis of the incidence and extent of substance abuse in secondary schools of Kenya, the focus of the present study.

Gathumbi (2003), in a study of substance abuse among the youth in Kenya observed that, 20% of adolescents aged between 12 and 22 years smoked cigarettes, 9% had tried to smoke bhang while some 23% drank commercial beer and spirits. This corresponds to the age of youths in schools and colleges. These institutions have in the recent past been hit by a wave of strikes that have been linked to drug and substance abuse. Gelinas (2006), in a survey on drug abuse among the youth, observed that there were many drug peddlers. He also observed that substances were sold to students by placing them in their geometrical sets used in schools. Also, matatu (minibus) touts were the conduits through which the users obtained these substances. However, incidence and extent of substance abuse in secondary schools was not the focus of this study.

In 2007, NACADA revealed that majority of drug abusers in Kenya were students in secondary schools and universities especially in the cities of Nairobi, Mombasa and Kisumu. In a survey on the abuse of alcohol and drugs in Kenya commissioned by NACADA, between 2001 and 2002, it was observed that drugs and other substances were abused in secondary schools and colleges (NACADA, 2007). The incidence and extent of drug abuse among students in Nairobi was not known.

These preceding studies have not carried out a detailed analysis of the extent and incidence of drug abuse in secondary schools of Kenya. They have tended to concentrate on drug abuse from a general perspective. This study sets out to fill this gap. It zeroes in on the extent and incidence of drug abuse in secondary Schools in Nairobi Province, Kenya. Nairobi, being the capital city of Kenya is one of the cities in which youths are destroying their lives due to drug abuse. Crime rate, which is associated with drug abuse, is more prevalent in Nairobi hence the focus for this study.

The study focuses on secondary school students who are mostly adolescents because they are the ones prone to experiment drugs. They are also the ones who pose a big challenge in Kenya in terms of their needs and their views of the world. The adolescents in Kenya constitute a big population, and hence the danger to the fabric of Kenyan society if the problem of drug abuse among them is not addressed as a matter of threat agency.

1.2 Statement of the Problem

The problem of drug abuse is a big threat to the Kenyan society. Crime rate, which is directly related to drug abuse, has escalated to levels that are very disturbing. We have witnessed numerous behaviour disorders and social maladjustments among the youth. Beastly acts such as rape of old women and minors, and grisly murder of innocent people are increasing day by day. The culprits of these criminal acts turn out to be very young people who have just left secondary school.

Among the drug abusers are students in secondary schools. These abuse drugs and other substances, and this affects them academically, psychologically and socially. At times they are expelled from school and they turn up to be delinquents and join street life. Since the establishment of the Assessment Centres under the Directorate of Quality Assurance in the Ministry of Education in Kenya in 1994, large numbers of students with behaviour disorders have been identified without deeper interrogation of what kind of behaviour disorders these are. Most of these students end up in psychiatric wards because they show signs of mental disorders. However, drug addiction has not been studied in Kenya to show the specific addiction signs that the students have. In developed countries such as United States, England and Australia, researchers have shown that drug abuse problem has been identified in secondary schools and is associated with certain behaviour disorders that students show. No such identification has been done in the Kenyan context before.

Statistics indicate that 27.7% of students in learning institutions and 77.1% of non-students youth in Kenya are large term abusers of substances. Overall, the proportion of non-student youth reported to be on bhang, Khat (Miraa) and inhalants is 34.9%, 55.1% and 22.5% respectively. These indications are scary given that Kenya is a 21st century member of the International Community and Drug and Substance Abuse (ICDS) contributing to the global problem (Mwenesi, 1996).

While recent research studies on drug abuse in Kenya have paid key attention to Mombasa City, little seems to have been done in Nairobi. Yet, Nairobi is the country's capital city expected to host more youth and other vulnerable groups like street children. Equally, little attention has been given to the role played by substance

abuse especially in the wake of secondary school unrest like strikes. The issue of substance abuse in secondary schools has therefore been left to the few trained counselling teachers or classroom teachers who may not be adequately equipped with the expertise needed to deal with cases of drug abuse and addiction, especially the hard drugs like heroine and cocaine (Republic of Kenya, 2002).

In Nairobi City secondary schools, just like in other cities in Africa, the risk age of drug abuse has gone down to twelve years from previous seventeen years. This is posing a serious challenge to anti-drugs user crusaders and the government (Republic of Kenya, 2006). In some instances, the students have even become victims of senseless drug traffickers who are out to recruit them into drug addiction at whatever cost. However, unlike HIV and AIDS around which the silence has been broken and declared a national disaster, drugs and substance abuse are still in the illegal and silent realm, and hence a lot of apprehension even in talking about them (Republic of Kenya, 2006).

The need to invest in preventive strategies was therefore noted, rather than the then prevailing curative approach whose impact was hardly felt. In addition, data on the trends of substance abuse and outcomes of addiction among young persons remain largely undocumented in Kenya. There is therefore need to seek for resources to contribute to this knowledge gap, through focusing on establishing the situation of substance abuse among secondary school students. Research was therefore called for to contribute towards building capacity of schools to effectively educate and intervene on the incidence and extent of substance abuse among students in secondary schools.

1.3 Purpose of the Study

The purpose of this study was to examine the situation of substance abuse among secondary school students in Nairobi Province, Kenya. It seeks to find out the types of drugs abused by the students in the province, the reasons as to why the students abuse drugs and the effects of drug abuse on the students. This was with a view to developing specialized student assistance educational programs on drug and substance abuse in Kenya.

1.4 Objectives of the Study

The study was conducted to:

- i. Determine the various substances commonly abused by secondary school students in Nairobi Province;
- ii. Assess the incidences of substance abuse in secondary schools in Nairobi Province;
- iii. Determine the factors that contribute to substance abuse by secondary school students in Nairobi Province;
- iv. Investigate students' behaviour related to substance abuse;
- v. Determine the incidences and extent of drug abuse by the type of secondary school in Nairobi Province;
- vi. Determine the incidences and extent of drug abuse by the category of school in Nairobi Province;
- vii. Investigate the incidences and extent of drug abuse by the status of secondary school in Nairobi Province; and,
- viii. Develop the framework for specialised student assistance programs.

1.5 Research Hypotheses

The study was based on the hypotheses that were stated as follows:

- H1: There is significant relationship between drug abuse and various categories of secondary schools.
- H2: There is significant relationship between drug abuse and the status of the schools.
- H3: There is significant relationship between drug abuse and the type of the schools.
- H4: There is significant relationship between drug abuse and the family environment.
- H5: There is significant relationship between drug abuse and failure at school.
- H6: There is significant relationship between drug abuse and peer pressure.
- H7: There is significant relationship between drug abuse and availability of drugs.
- H8: There is significant relationship between drug abuse and students' behavioural problems.

1.6 Significance of the Study

The findings of this study can enrich the country's national drug dependence preventive education. It is likely that teachers, schools and training colleges will find this study a rich resource for preparation of more meaningful lessons on substance abuse preventive education. Similarly, curriculum developers are likely to utilize the study's findings while organizing and sponsoring co-curricular activities aimed at substance abuse education. The study's findings are expected to be an important contribution to theory, and tools of studying substance abuse in Kenya. Finally, the findings would be important for the setting up of a substance abuse specialized

interventions program. It is expected that through such interventions, a systematic eradication of substance abuse among students in schools may end. Students will then focus their attention to schooling, and hence improve their performance significantly.

1.7 Scope and Limitations of the Study

The study was conducted among students in some selected public secondary schools in Nairobi Province and not other provinces in Kenya. This is because the researcher was not able to cover the whole country due to time factor, financial implications and other logistics. Additionally, Nairobi Province which hosts Nairobi City, the capital of Kenya, is among the regions that face a big challenge from drug abuse due to the influx of people from other regions of Kenya as well as outside Kenya. Nairobi has also been seen as both a destination as well as a conduit for drug trafficking in Kenya and these may easily find their way into Nairobi schools.

One limitation of this study was the unwillingness of some respondents to give information freely for fear of being victimized. The researcher however assured them that the information they gave would not be used against them and that the questionnaire they filled would be anonymous. Teachers and school administrators were assured that the information they provided would be held confidential and would not be disclosed to the authorities.

1.8 Theoretical Framework for the Study

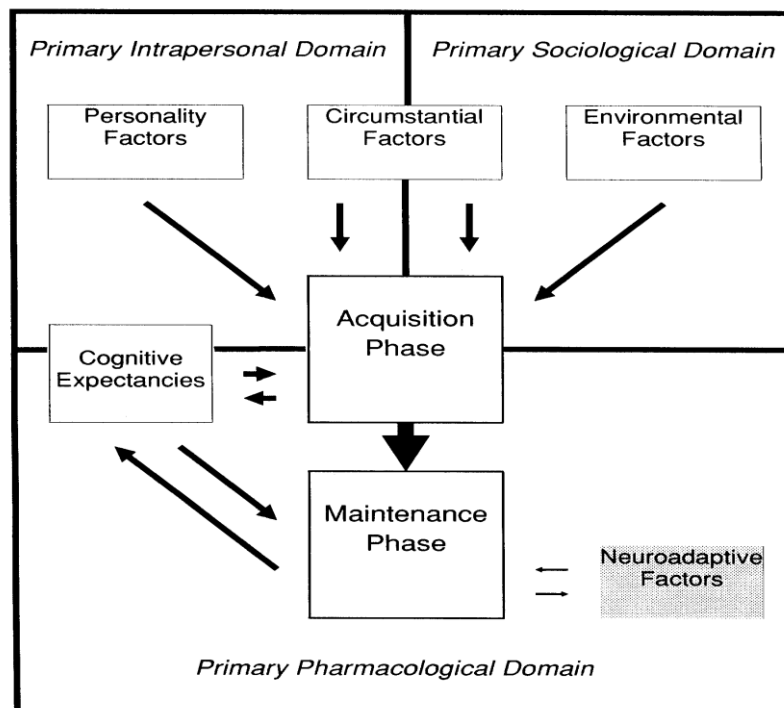
The theories illuminating the present study were; the social cognitive theory by Bandura (1977) and the optimistic bias theory credited to Weinstein (1984). From the social cognitive perspective, Bandura contends that psychological functioning is a

dynamic and reciprocal interaction between personal, behavioural, and environment determinants (Bandura, 1977). According to this theory, an individual's behaviour is uniquely determined by each of these three factors. However, all sources of influence are not of equal strength. The theory also accounts for pharmacological factors such as drug use and the influence they have on behaviour. Humans evoke different reactions from their social environment as a result of their physical characteristics such as age, size, race and sex. Moreover, expectations, beliefs, and cognitive competencies are developed and modified by social influences and physical structures within the environment. These social influences can convey information and initiate emotional reactions through such factors as modelling, instruction, and social persuasion. Applied to the current study, the social cognitive theory indicates to what extent substance abuse among students could be influenced by their gender, age and the social pressure they could be experiencing as they interact in the secondary schools. The final interaction occurs between behaviour and the environment.

Bandura (1977) argues that people are products and producers of their environment. The behaviour of a person is a product of his or her environment. Humans select their similes to interact with. Inherent within the notion of reciprocal determinism is the fact that people are able to influence their destiny. Meanwhile they recognize that they are conditioned, meaning that they are not free agents to exercise their will. Applied to this study, the aspect of interaction indicates that students choose to engage in activities that are risky making them vulnerable to substance abuse. Students may have knowledge about the altering moods and behaviour by drugs, yet they go ahead abusing them.

The Social Cognitive Theory also explains that the external influences affect the behaviour through cognitive processes. Human beings are capable of forming symbols which they can use to guide their future behaviour. Through this process a person is able to model observed behaviour. It is through understanding of the processes involved in one's construction of reality that will enable a human behaviour be understood, predicted and changed. To apply this knowledge in the current study, the social cognitive theory indicates that behaviour that students have acquired over time interact with their current secondary school environment to determine their substance abuse trend. The genesis of substance abuse, however, includes cognitive and sociological events, and they are acknowledged by the schema illustrated by the figure 2.1.

Figure 1.1: Relationships between addiction factors



Source: Australian Drug Foundation, (1999)

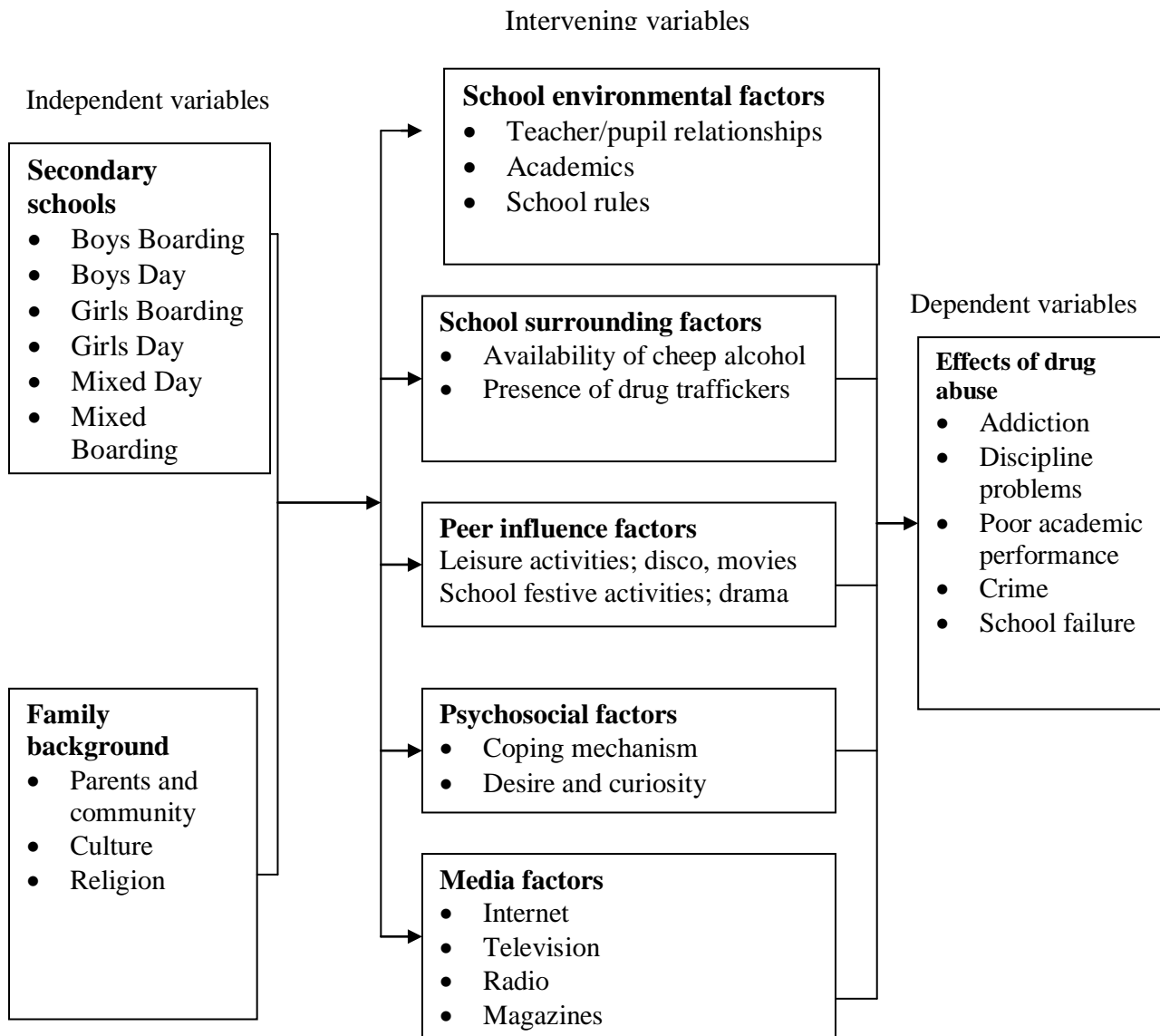
The figure depicts a psycho-sociological approach to the study of drug addiction. The domains shown on the schema contain the primary factor(s) and addiction phase(s) influenced by each type of process (i.e., intrapersonal, sociological, pharmacological). For example, pharmacological processes will mainly affect cognitive expectancies and will influence both the acquisition and the maintenance phases of addiction. Other factors may also be affected by pharmacological processes (e.g., circumstantial factors), and factors/phases contained within each domain are not exclusively controlled by that domain (e.g., environmental factors may also influence the maintenance phase). The vectorial paths progress from domain to factor to phase. For example, the primary factors influenced by sociological processes are labelled circumstantial and environmental factors; these factors, in turn, primarily influence the acquisition phase.

The other theory of Weinstein is concerned with the person's self esteem. Weinstein (1984), in his theory of optimistic bias argues that, individuals think that they are less likely than an average person to experience health problems. In assessing their risks, they may not realize the impact of behaviour risks factors. Applied to the current study, the optimistic bias theory indicates that students could be engaging in some leisure activities like watching provocative images in the media and participating in secondary students' activities like outings and discos. However, they could be feeling that these activities would not impact negatively on their drug abuse except their peers. Moreover, students tend to develop attitudes contrary to reality, like the assumption that drug addiction can easily affect their friends and not themselves. This could lead to continued engagement with substance abuse.

1.9 Conceptual Framework for the Study

The conceptual framework shows the relationship and interaction between the independent, dependent variables and the intervening variables.

Fig. 1.2: Relationship among the independent, dependent and intervening variables



Source: Researcher's conceptual framework.

1.10 Operational Definition of Terms

Substance abuse is the use of any chemical substance without medical consultation or supervision that may lead to loss of productivity or damage to the body (NACADA, 2007). It is used to describe a pattern of substance/drug use leading to significant problems or distress such as failure to attend work/school. Substance use may also interfere with friendships and or family relationships. Substance abuse, as a disorder, refers to the abuse of illegal substances or the abusive use of legal substances (NACADA, 2007).

According to the oxford dictionary, the word “substance abuse” refers to the wrong use of a substance for medical purposes either alone or in a mixture that changes the states, or function of cell organs or organism. Purris and Mach Innis (2009), the clinicians’ guide to diagnosis sees substance abuse as a residual category for patients whose substance use produces problems but does not fulfill the more rigorous criteria for substance dependence. Substance abuse is therefore the indiscriminate use, abuse and dependence on drugs of various types such as alcohol, tobacco, clinical medicine cocaine and heroine.

Addiction: used to refer to the condition in which one is dependent on drugs like alcohol.

Abuse: the wrong use of a substance, for instance, an overdose of a medical drug.

Behavioural problem: behaviour which does not conform to the social and environmental norms.

Confidentiality: the preservation of private, personal information concerning the student which is disclosed in the professional relationship.

Co-dependency: a relationship between two or more people who rely on each other to meet and provide for their needs, particularly unhealthy emotional ones.

Dependence: an emotional and sometimes a physical need experienced by a drug abuser, resulting from the abused substances and which affects function.

Drug addict: a student/someone who has used a drug repeatedly and has developed a strong attachment to it.

Drug/substance: any chemical substance that brings about human physical, mental and emotional changes.

Drug/substance abuse: a situation in which a drug or chemical substance meant for a medical cure or other purpose is taken outside its purpose, or in excess, for personal enjoyment or for avoidance, without medical reason or guidance.

Special needs students: are those diagnosed with a variety of special needs and are placed in classes designed to improve their opportunities for learning. Among the special needs students are such as those with drug addiction problem having learning problems and behavioural disorders.

Specialised intervention: treatment and rehabilitation measures which are exhaustively and significantly modified to suit the students who abuse drugs and are addicted.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter highlights what has been researched by other people concerning drug and substance abuse elsewhere and in Kenya. It highlights the gaps that the researcher will cover during the process of the study. The chapter also presents the conceptual framework of the study and the summary of the literature review.

2.2 Extent of Drug and Substance Abuse

The problem of drug abuse has preoccupied scholars since time immemorial. It is a psychosocial problem that affects the very fabric of the society and threatens the future of the young people. It has turned many into psychopaths, zombies and criminals, hence the interest of many scholars in this area.

Amayo (1994) affirms that substance taking is a historical fact and not a new invention. What is new according to him, are the types of drugs and methods of their acquisition. In the past, substance taking was sporadically for religious, social-ritual and treatment purposes and only by certain groups under certain conditions which were recommended. Such purposes and circumstances militated against dependence or abuse.

Adolescent substance abuse and its resulting harmful effects are major concerns to parents, policymakers, teachers, and public health officials. Nevertheless, experimentation with substances, particularly alcohol and tobacco, is a progressively more common behaviour from pre- to late adolescence. When adolescents try

substances a few times, with peers, this experimentation is generally not associated with any long-term impairment of functioning (Fetsch & Yang, 1990). Experimentation is considered problematic when substance use occurs at a very young age, with increasing frequency, while the child is alone, or in the context of behavioural or emotional difficulties. If use becomes more frequent, negative consequences can develop, including impairment at school or work, legal problems, accidents, and interpersonal difficulties. Substance use becomes abuse when an adolescent suffers negative and harmful consequences because of the use of the substances—and yet continues using them. Substance abuse has been strongly linked to risky sexual behaviour, delinquent behaviour, and low school achievement. Heavy and prolonged substance use can result in drug dependence, with a syndrome of significant distress if the drug use is stopped or reduced (Fetsch & Yang, 1990). This study though contains a valuable body of knowledge on the effects of experimentation with drugs and the social economic issues facing Colorado families does not focus on the extent and incidence of drug abuse focused on in the present study. It also treats rehabilitation and student assistance programmes peripherally.

Adolescents tend to follow a particular pattern of involvement with drugs. Typically, the first substance an adolescent uses is one that is legal for adults (tobacco or alcohol). The next stage is often experimentation with marijuana. Tobacco, alcohol, and marijuana have been labelled "gateway drugs" because they precede the use of other harder drugs. High frequency of use and early age of initiation are both associated with movement to higher stages of substance use (Mwenesi, 1996). The current study also focuses on such issues.

Early initiation of substance use is linked to substance abuse and dependence. Purriss and Mach Innis (2009) revealed that more than 40% of individuals who began drinking before age fourteen developed a dependence on alcohol. In comparison, only 10 percent of those who began drinking at age twenty and above developed alcohol dependence. Similarly, individuals who begin using drugs at an early age tend to experience greater drug problems. The present study focused on secondary school students who according to the above named studies are more likely to develop high dependence on drugs. It goes further to argue for a framework within which to assist these students out of drug dependence.

Kandel & Yamaguchi (1992) affirms that adolescents who use harder drugs such as cocaine or crack, begin using one of the gateway drugs (cigarettes, alcohol, or marijuana) two years earlier than adolescents who do not advance to harder drugs. Most smokers begin smoking as teenagers. More than 90% of individuals who become regular smokers begin before the age of nineteen. This study affirms the present study's rationale for focusing on secondary school students who begin using the gateway drugs and graduate into harder drugs hence a big danger to society.

Bachman, Johnston and O'Malley (2000) conducted a monitoring study tracking the prevalence of adolescent substance use among American eighth, tenth, and twelfth grade students each year from the mid-1970s into the twenty-first century. The study focused on three categories of substances: illicit drugs, alcohol, and cigarettes. It also examined gender and racial/ethnic differences in substance use. Illicit drug use peaked in the 1970s, decreased steadily until the early 1990s, and then increased during the 1990s, with a slight decline and leveling off at the close of the decade. Marijuana was

the most common illicit drug used. In 2000, more than half (54%) of American high school seniors reported using some type of illicit drug in their lifetimes. Reported prevalence rates among tenth and eighth grade students that year were lower (46% and 27%, respectively). In 2000, one-quarter of twelfth grade students reported using an illicit drug during the previous month, followed by 23 percent of tenth graders and 12 percent of eighth grade students.

Alcohol use increased throughout the 1970s, peaking at the end of the decade; it then steadily decreased in the 1980s and remained fairly stable during the 1990s. In Bachman, Johnston and O'malley (2000) survey, 80 percent of twelfth grade students reported having tried alcohol at least once, and 62 percent reported having been drunk at least once. 71 percent of tenth grade students had tried alcohol (49% had been drunk at least once), and 52 percent of eighth grade students had tried alcohol (25% had been drunk at least once). One-half of high school seniors, 41 percent of tenth graders, and 22 percent of eighth graders reported drinking alcohol in the previous thirty days.

Cigarette use peaked in the mid-1970s, declined substantially for a few years, remained relatively stable in the mid-1980s and early 1990s, increased during the mid-1990s, and experienced a slight decrease in the last few years of the twentieth century for eighth and tenth graders. According to results from Bachman, Johnston and O'Malley (2000), over half of twelfth graders (63%) and tenth graders (55%) reported smoking a cigarette in their lifetimes, while 41 percent of eighth graders had smoked. The reported prevalence rates for smoking during the previous thirty days

were 31% of twelfth grade students, 24 percent of tenth graders, and 15 % of eighth graders.

This study also established that male students have higher lifetime and thirty-day prevalence rates than their female counterparts for marijuana use for all grades reported. Senior male students reported more illicit drug use of other types in the previous thirty days than females, but there was little gender difference among tenth or eighth graders. Males also tended to use alcohol more than females, which became more apparent by twelfth grade. Across all grades, males and females seemed to have almost equal rates of daily cigarette smoking. African-American students report lower lifetime, annual, thirty-day, and daily illicit drug use prevalence rates than white and Hispanic students. African-American students also have the lowest prevalence rates of alcohol use, being drunk, and binge drinking. The current study also focused on gender differences among students, but also went further to study drug abuse by the type and status of school. It also studied counseling programmes in schools to see how they could be revamped and strengthened.

According to the United Nations (2007), drug abuse is generally considered to be on the increase in Kenya, as in most other parts of Africa. The absence of reliable and accurate data makes it difficult to convince the public and politicians of the scale and magnitude of the problem, and even more difficult to respond with adequate demand reduction measures. Cannabis and *khat* are the most widely abused drugs, but heroin and, to a lesser extent cocaine, are becoming a serious problem in some countries. Drug abuse is not associated with poverty alone, but is also related to wealth nor is it exclusively a male problem. In Kenya, drug abuse is usually wrongly considered to be

a male problem. Lately, some secondary school students, both girls and boys have been reported to have dropped out of school due to drug abuse. Some of these students join drug rehabilitation institutions while others end up in the streets (Kaguthi, 2004). It is important therefore to venture in schools through research, in order to find ways of preventing the problem.

Kenya is faced with a serious drug problem. The issue is mostly addressed by police, as it is a criminal offence. Gathumbi (2003) found out that adolescents who abuse drugs hide this fact for fear of being jailed. Studies on drug abuse prevention in secondary schools are scanty and the little knowledge given to teachers does not allow them cater for specialized interventions for drug addicted students. The students' drug abuse problems remain issues whose impact is usually underestimated. There is therefore urgency in developing specialized interventions in the Kenyan secondary schools so that addicted students can be cared for accordingly. Special education teachers trained for behaviour disorders such as drug addiction can then be engaged to exercise their profession fully in taking care of such students.

2.3 Literature on Prevalence of Substance Abuse

Kenya along with other developing countries of Africa have been lately experiencing a rapid increase in production, distribution and consumption of multiple drugs of abuse/dependence (Kaguthi, 2004). The dreadful consequences of such spread have become a big issue of great concern to the public at large. The unpublished study by Kaguthi confirmed that there is rampant drug abuse in Kenya's learning institutions as shown in table 2.1.

Table 2.1: The variation in the use of drugs

Age	Alcohol		Tobacco		Bhang		Khat/miraa		Inhalants	
10 – 14	328	22.4%	87	4.4%	17	0.9%	115	5.1%	38	2.2%
15 -19	838	31.4 %	378	11.1%	428	12.4%	428	12.4%	141	4.6%
20 – 24	991	55.9%	505	28.9%	443	23.3%	443	23.3%	110	6%
Total	2157		790		354		986		289	

Source: Kaguthi, (2004)

Table 2.2: Prevalence and risk ratios

Age/OR	Alcohol	Tobacco	Bhang	Chewed miraa	Inhalants
<15	22.4(1)	5(1)	1.0 (1)	6.6 (1)	2.2 (1)
15-19	31.4 (2)	14.53 (3.2)	5.3(6.5)	16.7(2.8)	5. 4(3)
20-24	55.9 (4.5)	28.9 (7.6)	11.5(15.6)	25.7(4.9)	6.3(3.4)

Source: Kaguthi, (2004)

The study further found out that the prevalence of drug use increased from primary to tertiary institutions. The most frequently used drug was alcohol. It was followed by *miraa/ khat*, tobacco and then bhang. It was noted that children as young as ten years of age, could use alcohol, ‘miraa’, tobacco, inhalants and bhang in that order (Kaguthi, 2004). The report further indicated that there was a certain trend in the use of drugs both by students and non-students as shown in table 2.3.

Table 2.3: Substances commonly abused by students and non-students

Substance	Long use		Current use	
	Students	Non-students	Students	Non-students
Alcohol	27.7	77.1	8.6	60.1
Tobacco	8.3	65.7	3.1	58
Bhang	2.8	34.9	0.6	21.1
Miraa	9.1	55.1	2.1	20.8
Inhalants	3.4	12.5	1.6	7.2

Source: Kaguthi, (2004)

According to Amayo (1994), there are various types of substances/drugs that are threatening the survival of man on earth. These include alcohol, tobacco, narcotics

(opium, morphine, heroin, codeine, synthetic, analgesics, and barbiturates), cannabis (charas, bhang, harshis) hallucinogens (LSD, PCP, mescaline), inhalants (aerosols, gasoline, petrol sprays, glues), stimulants like Amphetamines, cocaine, *khat* and caffeine beverages (coffee, tea, cola). NACADA (2007) suggests that educators and other professionals need to act on drug abuse in Kenyan institutions. Further recommendations are that programs are now more than ever needed to educate people on drug problem in Kenya. Drug problem is considered a crime in Kenya. It is not easy to research in this field as many abusers fear disclosing this information. But it is time the epidemic was declared a country disaster (Kaguthi, 2004). These studies give us very valuable information on substance abuse in Kenya but their focus is not the secondary school students per se and incidence and extent of substance abuse. Specialized intervention measures clearly are also not one of their pre-occupation.

Ndetei (2004), in his survey among drug abusers along the coastal region of Kenya found out that majority of youth who abuse drugs are in secondary schools. Many of these young men and women drop out of school due to drug - related health problems. He further contends that it is important to address the problem of drug abuse as an emergency in schools and find a solution to it, which until now has not been found. The issue of drug abuse has affected the secondary school students. In these institutions research on drug abuse among students is necessary as lately there have been a lot of problems of school unrest, and students dropping out of schools due to indiscipline in issues. Ndetei did not endeavour to carry out an in depth analysis of substance abuse in secondary schools, and did not focus on intervention measures to rehabilitate the abusers.

2.4 Previous Studies on Substance Abuse among Students

Florenzano, Mantelli, Madrid, Urzua and Zalas (1982) carried out a study on substance abuse among students in public schools in Santiago. The study employed simple random sampling and used questionnaires. Data collected revealed that majority of the students abused tobacco, cannabis and tranquilizers. The survey was based on a sample of 1,240 students from 4 public schools in Santiago. It further showed that 70% of the students used alcohol, 56.3% tobacco, 7.1% cannabis and 2.5% tranquilizers together with stimulants. Frequent alcohol consumption was found among 14.55% of the students and 11.1% of them smoked more than one cigarette a week. In a similar study by Pauline and Elliot (1997) in Nova Scotia Canada, carried out between 1991 and 1996, it was found that half of the students interviewed had used tobacco and cannabis 12 months prior to the study. This study lends credence to the present study's position that drug abuse by secondary school students is a big challenge to society worth of serious study.

Child and Adolescent Health Research Unit (CAHRU), University of Edinburgh, commissioned by the Information Services Division of National Housing Survey (NHS) National Services Scotland on behalf of the Scottish carried out a study in the Spring school term of 2004. The survey was conducted in schools using a class-based design. All pupils in selected classes were asked to complete a confidential questionnaire. The final sample size was 7,000 pupils in S2 and S4 from 191 schools across Scotland (including local authorities and independently funded schools but excluding pupils attending special schools). The overall response rate was 62%. The study's findings revealed that 6% of 13 year-olds and 19% of 15 year-olds were regular smokers. Among the 15 year-olds, girls were more likely than boys to be

regular smokers: 24% of girls compared with 14% of boys. Among 15 year-old boys, prevalence of regular smoking decreased from 30% in 1996 to 15% in 2000 (Myers, 2006). Myers underscores the prevalence of drug abuse among students hence the validity of the present study's focus on secondary school students in Nairobi Province.

Results from a survey of drug use carried out in Zimbabwe in 1990/91 involving 2,783 students from five different school categories in two provinces showed existence of use and experimentation, although prevalence was generally lower than corresponding European figures. Alcohol and tobacco were more common among urban than rural students and more common among private than public school students. Cannabis prevalence varied less, although high density urban school students reported higher figures than others. Prevalence of inhalants was highest at private schools. Use of alcohol, tobacco and cannabis increased with age for both sexes, contrary to inhalants which showed a decreasing tendency for females and minimal variations across age-groups for males. Scale analysis for urban students produced results similar to European studies, demonstrating a stage pattern beginning with alcohol and tobacco, followed by cannabis or inhalants. The same pattern could not be demonstrated among rural students. It was argued that drug use among urban students was more developed not only quantitatively but also in that the use of different drugs is systematically strongly correlated. Pattern variations between school-types may also reflect a stronger external or western influence on urban than rural adolescent drug use behaviour (Arne, 1990). The present study concurs with this position that drug abuse is more common in urban schools than in rural schools hence its focus on drug abuse in secondary schools in Nairobi Province.

Myers (2006) conducted a study which aimed at providing surveillance information about the extent and consequences of alcohol and other drug (AOD) use by adolescents for three sentinel sites in South Africa (Cape Town, Durban and Gauteng Province). From 1997 to 2001, data were gathered from multiple sources, including specialist treatment centres, trauma units, school students, rave party attendees, and arrestees. Since the start of the surveillance, an increasing proportion of South African adolescents were using AODs. This survey points to high levels of alcohol misuse among high school students, with alcohol being the most common substance of abuse. Cannabis was the most frequently reported illicit drug of abuse among adolescents.

A study carried out by Mwenesi (1996) on rapid assessment of drug abuse in Kenya revealed that the problem of drug abuse in Kenya is larger than expected, having permeated all strata of society, youth and young adults being the most affected groups. The other main findings of the study were that the abuse of "social" (alcohol, tobacco, *miraa*) and illicit (cannabis, heroin, cocaine, mandrax) drugs was rising perceptibly, and that solvents were being increasingly abused, and not only by the youth. The drugs are used, for example, to increase the potency of illicit local brews. Cough mixtures have entered the list of drugs being abused by the youth. Easy availability of dependence-producing drugs is one of the main causes of the upward trend in drug abuse in Kenya. This study however does not focus on drug abuse among secondary school students and neither does it zero in on specialized intervention programmes which were the focus of the present study.

In a survey conducted by NACADA team (2007) on drug abuse among the youth aged between 10 and 24 years, significantly, it was observed that the use of alcohol, bhang and *miraa* had indigenous roots. The team explored available support and recommended interventions to prevent or treat substance abuse. The survey team demonstrated that substance abuse was widespread, affected the youth mostly, but also cut across all social groups; alcohol, tobacco, bhang and *miraa* were the substances most often abused, and the youth were more and more abusing imported, illegal substances such as heroin, cocaine, and mandrax. At the same time, the survey revealed that, though evidence demonstrates that a number of non-students to a large extent engaged in substance abuse, the majority of the students who abused substances were in secondary schools and universities. Such students who mainly come from rich or middle-class families entertained the falsehood that substance use enabled a student study for long hours. The survey revealed that while substance abuse by the youth ranges from the increasing use of illegal and “hard” drugs to legal and “soft” substances, the youth mostly abuse four substances in this order: alcohol, tobacco, bhang and inhalants (Kaguthi, 2004).

The study further revealed that, on the whole, substance abuse usually begins at a very young age; for students, and for some non-students, it starts when they are in the primary school, the secondary school or the university. Further, the study pointed out that most students who used *miraa* were unaware that it was harmful because the government had legalised its use. As a result, the students increasingly use it under the illusion that it is safe (Kaguthi, 2004).

Little has been done after NACADA's recommendation. The worst hit schools are within the big cities, Nairobi being the leading. Many public secondary schools within Nairobi are day and students have access to drugs on a daily basis. Drug education becomes even more necessary than ever in present times (Ngare, 2007).

A study carried out by Ngesu et al (2008) on drug dependency and abuse in Kenya secondary schools in Kisumu Municipality showed that the problem of drug abuse is not limited to western societies and is fast becoming a big challenge in the developing world. The study traces the use of drugs from medieval times for religious and social purposes to the 19th Century when problems emanating from drug abuse have become apparent. The study goes on to look at drug abuse among secondary school students in Kisumu Municipality and the reasons for the same, namely easy availability of drugs, peer group pressure, age factor, curiosity, parental influence, availability of cash and high handedness of school administrators. This study unlike the others reviewed came up with strategies for intervention. It also identified alcohol as the most abused drug and peer group pressure as the main reason for abuse of alcohol. The study also investigated the effects of drug abuse and identified some as aggressive behavior, depression and anxiety, irritability, memory loss and decreased confidence among others.

Though this study provides valuable information that can help policy makers in coming up with policies that can help deal with drug abuse in schools, the focus on Kisumu Municipality was not sufficient enough to give an impression on the extent of the problem in the country as would be the case for Nairobi Province, the focus of the present study. The study also did not focus on drug abuse by the category and status

of the secondary school, a very vital component if holistic intervention measures are to be put in place. The present study filled this gap.

2.5 Studies on Possible Factors Associated with Substance Abuse Among Adolescents

Research findings unveil that most probably substance abuse among adolescents may be as a result of psychological, social/cultural and political factors (Kandel, Kazuo Yamaguchi and Kevin, 1992). However, there is no existing theory that clearly explains why adolescents abuse drugs. Some assumptions have been discussed but still not fully confirmed and this is one of the preoccupations of the present study.

2.5.1 Prenatal Drug Exposure

Researchers are beginning to identify a host of problems related to prenatal drug exposure. The characteristic behaviors of children who have been prenatally exposed to drugs are not only due to organic damage but also to other risk factors such as early insecure attachment patterns and ongoing environmental instability (Donna, 1989).

Behavioural characteristics commonly seen in these children include heightened response to internal and external stimuli, irritability, agitation, tremors, hyperactivity, speech and language delays, poor task organization and processing difficulties, problems related to attachment and separation, poor social and play skills, and motor development delays (Kaufman, 1990).

2.5.2 Cultural and Religious Reasons

Some substances that are widely abused have cultural roots. For instance, use of alcohol is in the annals of history as the oldest substance of abuse in the world. It is as old as civilization and brewing of alcohol existed in the post divulian era among the Sumerians, Babylonians, Egyptians, Assyrians, Hebrews, Chinese, Greeks, and Romans. During this time intoxication was a problem of notable concern. In Africa, during the pre-colonial era, drinking of alcohol took place during special occasions like communal projects, marriage, ceremonies, installation of chiefs, or other important cultural events. In Kenya, its use permeated through all communities (Amayo, 1994).

2.5.3 Leisure and Pleasure, and Peer Pressure

People use their leisure time to abuse drugs, especially for pleasure. The ancient Persians smoked tobacco for pleasure often finishing a meal with coffee and tobacco. Today, smokers usually advance arguments for the use of tobacco; they claim that it occupies their “idle” time and reduces anxiety and tension (Amayo1994).

The need for young people to belong to a social group (peer group) has made some of them to engage in drug taking. Cannabis for instance is passed from one user to the next. Likewise inhalants are shared among street children (Amayo, 1994).

Gathumbi (2003) contends that peer influence contributes significantly to substance abuse among students. In his study on substance abuse among secondary school students in Thika District, he found out that both the family and peers are the key factors to students’ drug vulnerability.

2.5.4 School Failure and Curiosity

Students in schools and colleges as well as other people are individuals with their unique problems and critical issues that can be tackled meaningfully only on individual basis. Failure to address the problem by individual students could result in feelings of hopelessness, hatred, failure and physical weakness. In an attempt to overcome the above mentioned feelings the individual seeks refuge in drinks or drugs. Such persons may become social drinkers or drug abusers (Gathumbi, 2003).

School risk factors include: ineffective classroom management, failure in school performance, truancy, affiliations with deviant peers, peers around deviant behaviour, and perceptions of approval of drug using behaviour in the school, and community environments (Kerachio, 1994).

Reports of drug abuse among the youth, socially unacceptable sexual adventures, academic underachievement, poor study habits, serious misunderstandings between teachers and students is common in Kenyan educational institutions. These have led to students expulsions from school, and even students dropping out of school (Republic of Kenya, 2006). The current study checked to find out if such factors led to students' discipline problems.

Drug abuse could lead to students in learning institutions having behavioural problems like stress, fatigue, anxiety, bullying and even committing of murder. In Kenya, such instances have occurred, where students under the influence of drugs have beaten up their teachers, raped them or killed fellow students. For instance, at Moi Sigor Secondary school, Nandi North, twenty two students set a classroom on

fire using petrol at night after a drinking spree (Kerachio, 1994). In Meru North district, “miraa” (*Khat*) chewing has formed a counter culture within the schools with both teachers and students being habitual chewers of the *Khat* (Ngare, 2006). A report by NACADA (2007) indicates that use of alcohol, bhang and miraa has indigenous roots and that the three substances have been widely used in the Kenyan society, although their abuse has not been part of indigenous heritage.

The Kenyan scene has been associated with the ever growing state of lawlessness even among young people. The recent increase in the state of unrest and indiscipline among the young people in schools and institutions of learning has been tentatively linked with the increase in production and use of alcohol, bhang (marijuana), and the experimentation with hard drugs such as cocaine, heroine and madrax imported to Kenya through illicit trafficking. Currently, Kenya as a nation has had to grapple with the increase of urban street children indulging in the use of inhalants such as glue and petrol sprays even with the recent rehabilitation efforts being carried out by the government (Amayo, 1992). Drugs especially alcohol have resulted in skirmishes in institutions of learning. For instance, students in the Kenya Institute of Mass Communication fought in their hostels with the students from the Kenya polytechnic claiming that the latter drank and harassed them (Kaguthi, 2004).

2.5.4 Family Background and Conflicts in Schools

The social-economic set-up of a child influences his/her habits. If a child is born of a drug addict then there is a likelihood of the same habit being transferred. This is why there is high rate of drug abuse at the coast where over 150,000 inhabitants of Nyali

(Mombasa) are all drug addicts with some villagers forming vigil groups to eject visitors out of the village (Ndetei, 2004).

Furthermore, misunderstandings between parents and their children, clashes between students and communities surrounding their schools, and conflicts among the students themselves are attributed to the rapid changes that have taken place in society in general and the educational institutions in particular (Kaguthi, 2004). This was also the focus of this study.

2.5.5 Mass Media Influence

In a country's development, the mass media helps to influence and educate people positively. However, when substance abuse is highlighted and glorified through publications, televisions, radios, electronic media and on-line, drug dealers and drug abusers often find opportunities to discover the latest sources of the drug. In Kenya, for instance, Mombasa city has been highlighted as a major drug destination hopefully to discourage and show the situation at hand (Shaw, 2007).

2.5.6 Availability

In the past drug taking was sporadically for religious, social, ritual and treatment purposes and only by certain groups and under certain conditions which militated against dependence. Currently there is indiscriminate use, abuse and dependence on drugs of various types. For instance medicines (drugs) are purchased from chemists even without a physician's prescription. Likewise, tobacco is produced and grown, manufactured, distributed and sold in almost all parts of Kenya while cheap unclean alcohol like 'Chang'aa' is readily available among students from the poor population

(Gelinas, 2006). Lamu town is known to be home for drug addicts from Tanzania who often sneak into Kenya after committing crimes in their country. In the villages, addicts buy drugs from the traffickers just nearby or visit chemists to get doses of Roche – a drug that should strictly be sold on prescription (Kithi, 2007). Drug abuse is becoming a problem to the Kenyan society. The youth are the most affected and majority of them are in secondary schools, (adolescent). Studies have been generally done to find ways of preventing drug abuse as a crime but little has been done to develop specialized interventions for adolescents who become addicted.

2.6 Previous Studies on Behaviour Related to Drug and Substance Abuse

There is some most common behaviour that indicates an individual is having a problem with substance abuse. However, each individual may experience different symptoms. Symptoms may include, getting high on drugs or getting intoxicated (drunk) on a regular basis, lying, especially about how much they are using or drinking, avoiding friends and family members, giving up activities they used to enjoy such as sports or spending time with non-using friends, talking a lot about using drugs or alcohol, believing they need to use or drink in order to have fun, pressuring others to use or drink, getting in trouble with the law, taking risks, such as sexual risks or driving under the influence of a substance. Work performance suffers due to substance abuse before, after, or during working hours, missing work due to substance use, being depressed, hopeless, or having suicidal feelings. The symptoms of substance abuse may resemble other medical problems or psychiatric conditions (Ketcham & Asbury, 2000).

Short-term effects of marijuana include problems with memory and learning, distorted perception, difficulty in thinking and problem solving, loss of coordination, and increased heart rate. The immediate effects of inhalants include extreme giddiness, excitement, and hallucinations. These substances may also cause brain damage, memory loss, and death. Binge drinkers are even more likely to engage in risky behaviour. They are more than five times as likely as non-drinkers to be sexually active, more than 18 times as likely to smoke cigarettes, and more than four times as likely to have been in a physical fight. The more often the students reported binge drinking, the greater the likelihood of engaging in other risky behaviour, including using marijuana and attempting suicide (McCoy, 2007).

This study also wanted to find out if the existing behavioural and discipline problems in Kenyan secondary schools are related to drug abuse. As noted earlier, for example, many schools are faced with discipline challenges like strikes and burning of schools. This study intended to find out if such behavioural problems among students could be as a result of substance abuse.

In a word, drug abuse is becoming a problem to the Kenyan society. The youth are the most affected and majority of them are adolescents in secondary schools. Studies have been generally done to find ways of preventing drug abuse as a crime but little has been done to develop specialized interventions for adolescents who become addicted.

2.7 Summary of Literature Review

The foregone literature review shows that the problem of substance abuse has attracted the attention of quite a number of scholars in Kenya and elsewhere. These

studies focused on substance abuse as an historical problem, (Amayo 1994), effects of experimentation on drugs leading to drug dependency (Fetsch and Young, 1990), the effects of experimentation by the young with “gateway drugs” and the inevitable danger of graduating into “hard drugs” (Mwenesi, 1996), secondary school students as the most prone age group to experiment with and later abuse drugs (Kandel and Yamaguchi, 1992; Bachman et.al, 2000) and the dangers of drug abuse in Kenya (UN 2007; Gathumbi, 2003; NACADA, 2007; Kaguthi, 2004; Ndeti, 2004 and Ngesu et al, 2008).

None of these studies however focused on the extent and incidence of drug abuse among secondary school students in Nairobi Province, a meeting pot of diverse cultures, a centre of foreign influences and a major point in drug trafficking. Specialized intervention programmes were not the centre of investigation for these studies as is the case with the present study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter consists of the procedures used in this study to collect and analyse data. It is organized under the following sub-headings: research design, the target population, sample and sampling procedure, research instruments, validity of the instruments, reliability of the instruments, data collection procedures and data analysis techniques.

3.2 Research Design

This study adopted an *ex-post facto* design. According to Mmaduakonam (1998), an *ex- post facto* design or causal comparative is concerned with what the phenomena is like, but if possible how and why it occurs. It involves finding out the effect of past factors on the target characteristics of the population of the study. In this research design, all the events or variables had occurred before the researcher collected data (Macmillan & Schummacher, 1989). The investigator then took one or more dependent variables and examined the data by going back through time seeking out causes, relationships and their meanings. The design was found best for this study since the researcher collected data after the events had taken place.

3.2.1 Variables of the Study

In this study there were the independent variables which were the family and the secondary schools. These variables impacted on the lives of the students and therefore leading to substance abuse, which was identified by addiction, discipline problems, poor academic performance, crime and school failure.

3.3 Location of the Study

The study was carried out in Nairobi Province, Kenya. Nairobi was chosen for its proximity and cosmopolitan set-up. Nairobi Province is prone to all sorts of influences both foreign and internal. It hosts the city of Nairobi which has a unique sub-culture. Nairobi has also been found to be both a destination and a conduit for hard drugs (Ngesu et al, 2008). The media has reported incidences of drug impounding by police. There is a high likelihood that these drugs easily find their way into schools in Nairobi Province. Most students in Nairobi Province get pocket money from their parents which they use to procure drugs owing to the fact that generally the poverty levels in the province are relatively low. The incidence and extent of drug abuse in Nairobi Province therefore is bound to be higher than in other regions with the exception of Mombasa which may exhibit the same characteristics more or less like those of Nairobi. Mombasa also has a unique sub-culture. Consequently, Nairobi's nature forms a base for all different schools in Kenya, thus forming a representative sample of the entire country. This province has a number of 54 public secondary schools. The schools vary in their category, type and status. The researcher obtained a list of public schools from the Ministry of education and then organized them according to their category, type and status as illustrated in table 3.1.

Table 3.1: Public secondary schools in Nairobi Province

School	National	Provincial	District
Boys Boarding (BB)	1. Nairobi school 2. Starehe boys 3. Lenana high 4. Moi forces	1. Dagoretti high 2. Upper hill	1. Pumwani 2. Muhuri muchiri
Boys Day (BD)	-	1. Aquinas high 2. High way 3. Jamhuri sec 4. Parklands high 5. St Teresa's 6. Nairobi school 7. Milimani	1. Eastleigh 2. Ofafa Jericho 3. Uhuru sec
Girls Boarding (GB)	1. Pangani 2. Precious blood 3. Moi girls	1. Huruma 2. Ngara 3. St Georges 4. State house 5. Starehe girls	1. Buruburu 2. Embakasi 3. Nembu girls 4. Nile road
Girls Day (GD)	-	1. Parklands Arya 2. St Teresa	1. Our lady of Mercy 2. Ruthimitu girls 3. Muslim girls
Mixed Boarding (MB)	-	1. Hospital hill	
Mixed Day (MD)		1. Our lady of Fatima 2. Ruaraka high	1. Kamiti sec 2. Ruthimitu 3. Karen C 4. Ndurumo 5. Dagoretti 6. Kamukunji 7. Kangemi 8. Kayole 9. Langata 10. Maina wanjigi 11. Dr Mwenje 12. Mutuini sec 13. Olympic 14. Baba dogo 15. Makongeni 16. Kahawa Garisson 17. Dandora secondary

Source: Ministry of Education, 2007

3.4 Target Population

The target population for this study was 21,555 students from all public secondary schools in Nairobi Province; 11,597 were male students and 9,958 were female students (Republic of Kenya, 2007). The study targeted students aged between 13 years to 21 years. This age group coincides with the adolescent stage in which teenagers are usually curious and want to experiment with everything; from sex to drugs. It is at this stage when they desire to have some degree of independence and to discover their identities and individualities. During this age, many events occur in the lives of these teenagers which sometimes leave them perplexed and confused. The influence of peer pressure at this stage is very strong as they always seek acceptance from others and want to develop a sense of belonging. Due to these changes, this age group is the one prone to drug abuse as a means of escape and as a means of gaining acceptance from peers who introduce them into drugs.

The counselling teachers were selected since they were more involved in students' personal life. Every sampled school had one counselling teacher and therefore all counselling teachers in the province were talked to.

3.5 Sampling Procedures and Sample Size

In order to get an appropriate sample from the total population, stratified sampling was used. According to Kombo and Tromp (2006), this method is used when the population is heterogeneous, (boys boarding, boys day, girls boarding, girls day, mixed boarding and mixed day). The researcher constructed a sampling grid of six rows representing the types of schools, and three columns representing the status of

the schools (National, Provincial and District). This information is illustrated in table 3.2 below.

Table 3.2: Types and status of public schools in Nairobi province

TYPE	STATUS OF THE SCHOOL			TOTAL
	National	Provincial	District	
BB	4	2	2	8
BD	-	6	3	9
GB	3	6	4	13
GD	-	2	3	5
MB	-	1	-	1
MD	1	2	17	20
TOTAL	8	19	29	56

Key:

BB - Boys Boarding

GD - Girls Day

BD - Boys Day

MB - Mixed Boarding

GB - Girls Boarding

MD - Mixed Day

The stratum was then treated individually to obtain one school from each. Where the stratum had only one school, purposive sampling was used to select the school. Where only two schools were found in the stratum the researcher tossed a coin to select one of the schools, in which case the head was considered. If more than two schools appeared in a stratum, a raffle method of simple random sampling was applied to select one school. Some strata did not have any school. A total of 15 schools were selected. The following table shows the total number of schools that were selected.

Table 3.3: Selected schools

TYPE	STATUS OF THE SCHOOL			TOTAL
	National	Provincial	District	
BB	1	1	1	3
BD	0	1	1	2
GB	1	1	1	3
GD	1	1	1	3
MB	0	1	0	1
MD	1	1	1	3
TOTAL	4	6	5	15

From the selected schools the researcher considered students from form one, two and four. Form one class was considered to find out if students had an experience of drug abuse behaviour before joining secondary schools. The form two students were considered so that they could help us find out the pattern of drug abuse, by comparing them with form one students. This would also show whether more form twos were taking drugs than form ones and hence show the effect of secondary school culture on drug abuse. The form four students were chosen because they had more experience in the schools and had stayed relatively longer time and so could give more reliable information on drug abuse behaviour. Form three students were left out as it was unlikely for them to give information on drug abuse that would be different from that the form fours would give, both groups having stayed in the school for a considerable amount of time. Focusing on form fours was better since it would give an indication of the number of students on drugs that would be churned out of secondary schools, and hence get an impression on the amount of danger society would be faced with from those who probable would not be absorbed in the labour market or would not join institutions of higher learning. This category of students enabled the researcher to know the incidence and the extent of substance abuse among students.

All the counselling teachers in the 15 schools were automatically selected, putting the number of teachers selected to 15. Gay (1981) has shown that a sample size of 10 to 30% of the total population is adequate for a study in descriptive research. Out of each class 10% of the students comprising the sample were considered as shown in table 3.4. Systematic method of sampling was used to select individual students to be interviewed in each class. Every tenth student from the admission register was selected.

Table: 3.4 Sampling frame

Type	Form 1		Form 2		Form 4		Total Sample
	Stds	Sample	Std	Sample	Std	Sample	
<i>NBB</i>	295	30	275	28	258	26	84
<i>PBB</i>	210	21	226	23	176	18	72
<i>DBD</i>	155	16	140	14	108	11	41
<i>NBD</i>	0	0	0	0	0	0	0
<i>PBD</i>	75	8	93	9	105	11	28
<i>DBD</i>	156	16	210	21	176	18	55
<i>NGB</i>	93	10	92	9	87	9	28
<i>PGB</i>	117	12	150	15	107	11	38
<i>DGB</i>	146	15	140	14	131	13	42
<i>NGD</i>	0	0	0	0	0	0	0
<i>PGD</i>	98	10	88	9	85	9	28
<i>DGD</i>	62	6	91	9	44	4	19
<i>NMD</i>	0	0	0	0	0	0	0
<i>PMB</i>	<i>b</i>	<i>g</i>	<i>b</i>	<i>g</i>	<i>b</i>	<i>g</i>	
	45	46	5	5	39	32	4
			3	3	32	36	3
			4	2	41	18	4
<i>DMD</i>	40	16	4	2	34	17	3
			3	2	41	18	4
			4	2	41	18	4

Key: *b* - boys *g* - girls *Stds* - students

N B B - National Boys Boarding

NGB - National Girls Boarding

PBB - Provincial Boys Boarding

PGB - Provincial Girls Boarding

DBD - District Boys Day

DGD - District Girls Day

NBD - National Boys Day

NGD - National Girls Day

PBD - Provincial Boys Day

PGD - Provincial Girls Day

NMD - National Mixed Day

PMB - Provincial Mixed Boarding

DMD - District Mixed day

3.6 Research Instruments

The study used two different questionnaires to collect data. A students' questionnaire and a teacher/counsellor's questionnaire. Both questionnaires had two sections A and B. Part A was on demographic information of the respondents while part B had items on the causes, effects and other variables on substance abuse among secondary school

students. The advantage of the questionnaire was that it allowed uniformity for all respondents. It was also less expensive and less time consuming. Jack R. Fraenkel and Norman E. Wallen (2008) observed that a questionnaire offers considerable advantages in the administration: it presents an even stimulus potential to large numbers of people simultaneously and provides the investigation with an easy accumulation of data. The authors maintain that questionnaires give respondents freedom to express their views or opinion and also to make suggestions. It is also anonymous. In this study, the questionnaire was found effective because researching on drugs was not easy as drug abuse is a crime and the respondents feared to be identified and arrested by the authorities. Anonymity helped to produce more candid answers than it was possible in an interview.

3.7 Pilot Study

Before commencing on the study, a pre-testing of the questionnaires was conducted. The aim of pre-testing assisted in determining accuracy, clarity and suitability of the research instruments and to check their validity and reliability. The pilot study was conducted in two schools; one day school and one boarding school. The schools were not part of the final study. All the form one, two and four students and counselling teachers were involved in the pilot study.

The two schools involved in the pilot study were; a Day District Mixed school (DDM) which was in Nairobi province and a Provincial Mixed Boarding school (PMB), in Central Province. Though not in Nairobi Province, the latter was chosen for piloting because it is in the periphery of Nairobi city and the students had characteristics comparable to those in the city schools.

From each school ten students were chosen, using simple random sampling from form one, two and four. The total pilot sample was therefore 60 students. One counselling teacher from each school responded to the teacher's questionnaire. The pilot sampling grid is shown in table 3.5 below.

Table 3.5: Pilot sampling frame

Class		Form 1		Form 2		Form 4		Total
Gender		Boys	Girls	Boys	Girls	Boys	Girls	
School	PMD	5	5	5	5	5	5	30
	DDM	5	5	5	5	5	5	30
Total		10	10	10	10	10	10	60

Key: **PMD** = Provincial Mixed Boarding

DDM= Day District Mixed

The statistical analysis of the raw data was done. The test and re-test reliability procedure to test the consistency of the responses to the two questionnaires was done. This was accomplished by comparing the same sample population for piloting after administering the same questionnaires to the same respondents and in the same schools after two weeks. The two weeks were considered to avoid the replication of the same answers by the respondents. The two weeks interval also helped to adjust the questionnaires appropriately.

3.8 Validation and the Reliability of the Instruments

Validity shows whether the items measure what they were designed to measure (Borg and Gall, 1989). After the first stage of collecting data, the researcher visited the same schools and administered the same questionnaires to the same selected sample. Scores from the first stage were then correlated with scores from the second stage. In order to

reflect the reliability of the whole instrument, correlation was done using Pearson product-moment correlation to establish the consistency of the instruments. A correlation coefficient (r) of 0.82 was obtained, indicating that there was a strong relationship between responses of the first and the second stage scores. The results obtained from the two similar samples showed reliability of the questionnaires and therefore the instrument could be used for the final study. Mugenda and Mugenda (1999) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trial. The pre-testing helped in assessing the clarity of the questionnaire items. Those items which were found to be inadequate were modified to improve the quality of the research instrument, thus increasing its reliability.

3.9 Data Collection Procedures

The researcher got permission from the Ministry of Education to collect data from the selected public secondary schools in Nairobi Province. With the permit, the researcher then approached the targeted schools and booked for appointments with the principals on the material day to administer the questionnaires. Due to the large sample the researcher used four research assistants. The researcher personally held training seminars for the research assistants, regarding the research and the observation of ethical issues. The research assistants were taken through the two sets of questionnaires and exposed briefly to the overall purpose of the study. They were also advised to be as courteous as possible to the respondents and to assure them that the information they provided would not be used against them. The training of the research assistants was done within one day in the researcher's office. The research assistants were put in groups to discuss the questionnaires and to share experiences of

researches they had done before. Possible obstacles such as requests for money from respondents and also the latter's unwillingness to give information were discussed and possible solutions to the same shared.

3.10 Data Analysis Techniques and Testing Hypotheses

Once data was obtained from the field, it was then coded and analysis was aided by computer using a statistical software SPSS (Statistical Package for Social Sciences) programme for windows. It was then summarised using distribution tables, bar graphs, and pie charts for all items. In presenting data, central measures of tendency were used to discuss the findings. The significance of the stated null hypothesis was tested using the Chi – square as follows.

- H₀1: There is no significant relationship between drug abuse and various categories of secondary schools.
- H₀2: There is no significant relationship between drug abuse and the status of the schools.
- H₀3: There is no significant relationship between drug abuse and the type of the schools.
- H₀4: There is no significant relationship between drug abuse and the family environment.
- H₀5: There is no significant relationship between drug abuse and failure at school.
- H₀6: There is no significant relationship between drug abuse and peer pressure.
- H₀7: There is no significant relationship between drug abuse and availability of drugs.
- H₀8: There is no significant relationship between drug abuse and students Behavioural problems.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter includes the analysis of the study presented in form of tables showing frequencies and percentages, followed by discussions, interpretation of the research findings and the implications for school interventions. The research findings are organized according to the responses of students and teachers. The presentation starts with the students' responses while those of counselling teachers are considered to support the findings on students' drug and substance abuse. The data is then analysed to find out if there is a problem that would suggest the need to develop a specialized interventions program for secondary schools.

4.2 Demographic Characteristics of the Students

This section deals with the questions aimed at establishing the respondents' background information such as age, gender, school status and category. Their responses are as follows:

4.2.1 Distribution of students by age

Students' responses on their age yielded the following data, as indicated in table 4.1 below.

Table 4.1: Students by age in the sampled schools

Student's age	Frequency	Percentage%
13 - 15 years	138	39.3
16 - 18 years	189	53.8
19 - 21 years	24	6.8
Total	351	100.0

According to the findings contained in table 4.1, the ages of the students sampled ranged from 13 years to 21 years. It is evident that students who were between 13 years and 15 years formed 39.3%, those between the ages of 16 years and 18 years were 53.8% and those between 19 years and 21 years of age were 6.8%. This information shows that majority of the students in secondary schools were between the ages of 16 years and 18 years. The study also shows that students whose ages are between 13-15 years begin discovering these in secondary school. It is the age of detachment from their parents. This is the age when they join and live with their peers, and begin discovering other experiences different from those they were used to in their home environment. They learn other behavioural patterns from their peers. As the study indicated earlier in chapter two, it is the period when they experience peer pressure as Amayo (1994) contends. This is also the age in which what the peers think about them means a lot to them, and then the influence from their peers is the greatest.

4.2.2 Distribution of the students by gender

Both male and female students in public schools in Nairobi Province were surveyed. In terms of gender distribution, the sample comprised of 61% males and 39% females. This distribution was found to be consistent with the normal gender distribution in the Kenyan secondary schools. Usually, male students are more in number than female students.

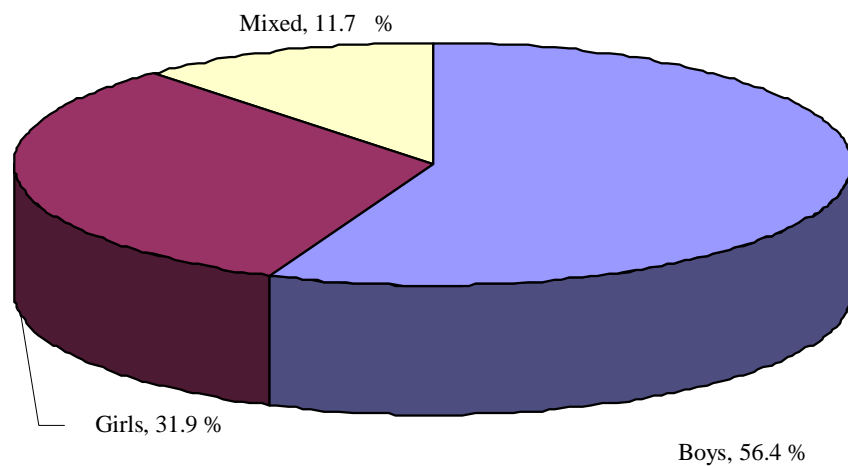
4.2.3 Distribution of secondary schools by category

The aim of investigating the category of the school (category means boys, girls or a mixed school) was to find out which category was particularly hard hit by the drug

and substance abuse problem. This information was important in providing appropriate recommendations.

The distribution of the schools by category showed reasonable discrepancy. This was assumed so, due to their nature and the societal attitudes by parents, teachers and even pupils. As the Fig. 4.1 chart indicates, the most populated schools within Nairobi Province were boys schools with 56.4% of the students sampled compared to girls schools with only 31.9% of the total sampled population. Mixed schools (boys and girls schooling together), were least preferred with 11.7%. In Kenya, there is a common belief amongst parents that in gender separate institutions learning becomes more effective. This is summarised in figure 4.1.

Figure 4.1: Schools by category



4.2.4 Types of public schools in Nairobi Province

To establish the schools in which drugs are commonly abused by students, it was necessary to find out the type of school the drug abuse problem was common. The information about different types of secondary schools is captured in table 4.2 as follows.

Table 4.2: Schools by type (Day/Boarding)

Category of school	Frequency	Percentage
Day	127	36.2
Boarding	224	63.8
Total	351	100.0

The commonest public secondary schools found in Nairobi province were day schools (students commute daily from their homes) and boarding schools (students live in schools for three months and go for a month's holiday at home). The preferred schools according to the study's findings were boarding schools, and out of the number of schools sampled they presented the highest figure of 63%. It is common practice in Kenya for students to study in boarding institutions as most parents feel that boarding institutions are safe and students can concentrate in their studies better than in day schools. Day schools were least preferred due to certain reasons and from the study's findings they were significantly few. Day schools were almost half of the boarding schools with 36.2%

4.2.5 Categories of students who participated in the study

The students who participated in this study were from form one, two and four. These classes were considered in order to find out the drug abuse pattern and trend among students and across the class levels. The findings are shown in table 4.3.

Table 4.3: Students who participated by classes

Participants by class	Total number of students	Percentage
Form 1	134	38.2
Form 2	122	34.8
Form 4	95	27
Total	351	100.0

To investigate drug abuse pattern in secondary schools, students were grouped according to their levels and their classes. 38.2% were form one students, 34.8%

belonged to form two class and 27% were in form four. This information revealed that students decreased in number in form two and this worsened in form four. This decrease in number of students could have been as a result of drug addiction problems facing secondary schools in Kenya as students found taking drugs usually get expelled by the administration. This information concurs with a previous survey done by NACADA (2004). The expulsion from school is a position the present study departs from as drug abuse and dependency is a disease that students involved in it need to be assisted to recover from.

4.2.6 Students' family environment

The respondents were asked to identify the people they lived with at home. The idea behind this investigation was to find out if students had influences from their family environment which could have been a determining factor in their drug and substance abuse behaviour. Table 4.4 captures this information.

Table 4.4: People living with students

	Count	Responses %
Living with parents	317	61.5
Living with siblings	139	27.0
Living with relatives	41	3.5
Living with grandparents	18	8.0
Total responses	515	100.0

Table 4.4 shows the distribution of the students by the people they live with. The study assumed that the types of people the students lived with were of great influence in their lives and the way they behaved towards themselves and others. It emerged that majority of the respondents lived with their parents and there were 61.6% of such cases. This showed that most of the students targeted for the study with their parents

probably staged their behavior and personality. It is also possible that some of the families were not stable and that they could have been full of conflicts and tension which could have prompted the students to abuse drugs as a means of escape.

4.3 Types of Drugs and Substances Abused by Students

This section documents the various substances which were commonly abused by students. The instruments which were used contained some items that investigated drug and substance abuse in schools and their effects on students. Responses to these items are presented under the sub-headings that follow.

4.3.1 Drugs and substance abuse among students

Generally learning institutions are considered to be environments per excellence where young people learn academics and model behaviour. Every parent, especially in Kenya celebrates annually when their children pass the primary school exams and join secondary schools. This idea has been curtailed by certain challenging events of the 21st century. Among these events include the drug and substance abuse among adolescents. Adolescents in secondary schools in Kenya have unfortunately been affected by this global epidemic. There are various reasons that have led students to become victims of drug and substance abuse as this study has established. Some of the reasons were speculated by theorists as the study had earlier indicated in chapter two and concurred with the current findings.

Bandura (1977) had argued that people are products and producers of their environment. The behaviour of a person is a product of his or her environment. The theorist further stated that humans select others to interact with. Inherent within the

notion of reciprocal determinism is the fact that people are able to influence their destiny. To find out if the students' drug abuse was as a result of the influence by the school environment, (this included, peers pressure, teacher/student relationships and other factors) the students were asked to indicate the drugs and substances they had seen within their schools. Within this section, the counselling teachers were also investigated in order to find out if during counselling sessions they came across cases of students who abused drugs. The results of this information are summarised in tables 4.5 and 4.6 as follows.

Table 4.5: Teachers' report of students' experience of drugs and substance abuse

Types of drugs abused by students	Seen in School		Never seen	
	Number	%	Number	%
Alcohol (beer)	323	95.3%	16	4.7%
Tobacco	269	81.5%	61	18.5%
Narcotic drugs (opium morphine, heroin cocaine)	50	16.3%	256	83.7%
Cannabis (charas, bhang, marijuana, hashish)	176	55.2%	143	44.8%
Hallucinogens (I.S.D.P.C.P, mescaline, barbiturates)	28	9.6%	264	90.4%
Inhalants (Aerosol, gasoline, petrol spray, glue)	253	80.3%	62	19.7%
Stimulants (cocaine, miraa)	282	86.5%	44	13.5%
Mescaline	17	5.9%	272	94.1%

Table 4.6: Teachers' report on students' drug abuse

Teachers' report on types of drugs abused	Number	Respondents%
Alcohol	13	100.0
Tobacco	10	6.9
Marijuana/hashish	9	9.2
Cocaine	2	15.4
Heroin	3	23.1
Ecstasy	3	23.1
Inhalants	1	7.7
Non medical psychotherapeutic	2	15.4
Illicit drugs other than marijuana	3	23.1
Miraa	6	6.2

It is evident from the above tables that significant percentages of students were familiar with certain categories of drugs. The study assumed that the drugs that were seen in school were also the ones being abused. It was found that most students were familiar with almost all kinds of drugs. Alcohol ranked the highest with 95.3%, stimulants ranked second with 86.5%, 81.5% of them reported about tobacco; this was followed closely by inhalants like petrol and glues, and cannabis with 80.3%. However, hallucinogens and mescaline were least common in schools.

The counselling teachers had almost parallel information about students' cases of drug abuse. According to their experiences alcohol was the drug mostly abused by the students with 100%. Cannabis was also significantly abused and 76.9% of the students were on it. According to the teacher/counselors, students had moved from softer drugs such as inhalants at 7.7% to harder drugs as discussed earlier in this paragraph. Reason to this behaviour could have been that students had gotten used to certain kinds of drugs and wanted to experiment other newly introduced drugs in the market. Another possible reason could be that students have money to purchase hard drugs though they are expensive since they get pocket money, from their parents and guardians. This information concurred with NACADA's (2007) as indicated in chapter two, on a survey in which drug abuse by students was investigated in learning institutions in Kenya.

4.3.2 Drugs and substances abused in secondary schools

To find out the kind of drugs commonly abused in secondary schools, students were asked to indicate the drugs that they had taken while in school. The findings are summarised in table 4.7.

Table 4.7: Abuse of drugs and substances in secondary schools

Type of drugs	Abused		Not abused	
	Number	%	Number	%
Alcohol (beer)	139	42.8%	186	57.2%
Tobacco	68	21.6%	247	78.4%
Narcotic drugs (opium morphine, heroin cocaine)	9	3.0%	289	97.0%
Cannabis (charas, bhang, marijuana, hashish)	45	14.6%	264	85.4%
Hallucinogens (I.S.D.P.C.P, mescaline, barbiturates)	3	1.0%	290	99.0%
Inhalants (Aerosol, gasoline, petrol spray, glue)	29	9.6%	272	90.4%
Stimulants (cocaine, miraa)	97	31.1%	215	68.9%
Mescaline	2	.7%	286	99.3%

It is apparent from table 4.7 that most students had abused alcohol (42.8%). Other significantly abused drugs included stimulants (31.1%) and tobacco (21.6%). This information coincides with table 4.5 on page 50 on drugs seen in schools. It is assumed that the drugs that students had seen in schools are the same ones being abused. This sequence of drug abuse concurs with the global information as discussed earlier in the introduction, which stated that most adolescents begin with alcohol, move on to tobacco, marijuana and then to other harder drugs (Kandel and Chen, 1995).

4.4 Reasons for Abusing Drugs and Substances

Students reported various reasons that lead them to abuse drugs. The study assumed that most students were conditioned and did not act independently. Table 4.8 summarises the reasons for students' drug abuse.

Table 4.8: Reasons for drug abuse according to the students and teachers report of students' experience on drug abuse

Reasons for abusing drugs	Students		Teachers	
	Number	Respondents %	Number	Respondents %
Peer pressure	181	76.4	8	61.5
Frustration and stress at home	122	51.5	5	38.8
Family background	103	43.5	3	23.1
Availability of the drugs	88	37.1	3	23.1
Influence by mass media	79	33.3	2	15.4
To keep me awake	75	31.6	2	15.4
Failure at school	58	24.5	2	15.4

In chapter two on literature review, some reasons were discussed that lead youth and adolescents to abuse drugs. Among these reasons were peer pressure, mass media and frustrations at home. These same reasons were confirmed by the current study's findings. Students identified the same reasons for taking drugs while in school. The majority of the students abused drugs after succumbing to peer pressure, frustration and stress at home. The frustrations and stresses were linked to the family background which was also mentioned as the major cause of drug abuse in schools. Students also confessed that drugs were readily available for them. Some (79%) stated that the urge to abuse drugs was as a result of mass media. The other (58%) said that due to their failure in school they abused drugs to cope with that frustration while others claimed that drugs helped them to remain awake and study better. The counselling teachers confirmed these reasons in their responses as to why students abused drugs as seen in table 4.8, 61.5% of the counseling teachers mentioned peer pressure as the reason that lead students to abuse drugs. These coincide with what the students themselves said. Influence of parents was the second main reason which corresponds with the students' assertion that frustration at home led them to abuse drugs. This shows that the family background and peer pressure were the leading reasons as to why students abused

drugs according to the students themselves and the counseling teachers. The information is important as it enlightens on areas of interventions especially for counselling teachers and other professionals who encounter students in schools.

4.5 Awareness of drug abuse by the students

To assess the level of drug awareness amongst students, the researcher sought to know the interpersonal relationships among students. The number of students whose classmates abused drugs was used to indicate the level of awareness of the drug abuse problem in schools. 33.5% of the students admitted to having knowledge of their classmates who abused various kinds of drugs and substances while 66.5% of the students denied to having knowledge about their peers association with drug abuse. This part of the investigation was tricky as many students had reservations in admitting their involvement in drugs as drug abuse is a crime in Kenya. This fear slightly made the students and counselling teachers hold back; even though the researcher had assured them by writing that their information was going to be kept confidential. The researcher was aware of this fact as drug abuse in Kenya is a crime and one could be victimised by the police. This situation makes research on drug and substance abuse generally difficult as the respondents usually are unwilling to give true information about themselves. But in this study the researcher and the research assistants asked the counselling teachers and the students to respond correctly to the questions which were asked and not to write down their names anywhere and assure them that the information would not be revealed to the authorities.

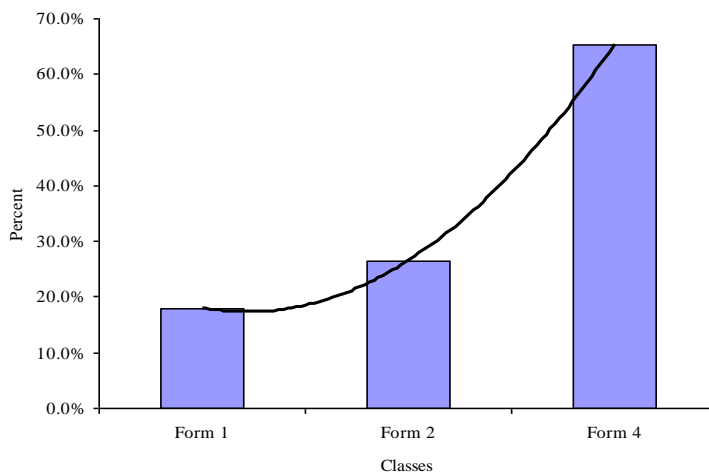
4.6 Linkages between study variables

In an attempt to determine whether students' drug and substance abuse behaviour was related to certain factors, the study's variables were assessed to find out how they were related to each other.

4.6.1 Association between class levels and drug abuse

Figure 4.3 shows the association of drugs to classes to indicate cases of drug abuse. It emerged that the rate of awareness of classmates' abuse of drugs increased with the classes; for example 65.2% of form fours were aware of their classmates' abuse of drugs, followed by form 2 with 26.4% and lastly 18% in form one. This association implied that as the students graduated from one class to another more of them got introduced into the drug abuse culture and also their level of awareness of drug use in school increased because of the length of stay in the school.

Fig. 4.2: Linkage between class and drug abuse



4.6.2 Drug and substance abuse among friends in schools

To investigate the prevalence of drug and substance abuse in secondary schools, all the students in the three classes targeted were asked to state their friends whom they

knew abused drugs. This was with the aim of finding out which classes were more prone to drug abuse behaviour. The findings presented the following results. The difference between students who had friends as abusers and non abusers of drugs was only 5% of the total sample. This meant that 45% of the students had at least friends who abused drugs while 55% did not. Most of the students who had friends who abused drugs were in form 4 (64.9%), followed by those in form two and lastly form one. This also implied that drug abuse was more rampant in higher classes than in lower classes i.e. the rate of drug abuse increased with the class level; the higher the class level the larger the number of students who abused drugs. This pointed to the fact that students were getting more experience in drug abuse as they advanced in classes. And as we had found out earlier on table 4.4 of this research, the registration of students in form four decreased significantly. The study presumes that drugs had negative impacts on students' health and education. It was assumed that this could have been a major cause of students dropping out of school. This was further corroborated by the counselling teachers who held that students who abused drugs dropped out of school and developed health problems. Due to indiscipline issues and school safety most students found to be abusing drugs were also suspended from schools. This was one of the steps taken by the school administration as a disciplinary measure against drug abuse. On the same issue, 72.7% of the counselling teachers reported that they had recorded cases of students' suspensions from school due to drug abuse and addiction. This could mean that in those schools there lacked skilled personnel to handle drug abuse problems.

4.6.3 Drug and substance abuse among friends across the classes

Recalling the findings of table 4.3 that shows the decrease of students in class levels due to drug associated problems, this information concurs with table 4.10. Drug abuse among friends was highest in form four with 64.9%, and then followed by 43% in form two and the least in form one at 32.8%. It was interesting to notice that there was already an existing influence among friends in form one. The study assumes that some students had already learned drug abuse behaviour before joining secondary schools. This confirmed the family background as a factor that contributed to students' drug abuse. This indicated that parents who drank influenced their children in the drug abuse behaviour. In the conceptual frame work of this study, it was stated that the behaviour of a person is a product of his/her environment. This was quoted by Bandura (1977) in the social cognitive theory that explains how external influences affect the behaviour of an individual through cognitive processes. This information goes well with the students' responses that that they learned drug abuse way back from their parents who use substances and other drugs. The family environment therefore is a fundamental determinant of modelling a child's behaviour.

Table 4.10: Class and drug abuse among students

Respondents by class	Frequency	Do you have friends at school who abuse drugs?		Total
		Yes	No	
Form 1	Number	44	90	134
	%	32.8%	67.2%	100.0%
Form 2	Number	52	69	121
	%	43.0%	57.0%	100.0%
Form 4	Number	61	33	94
	%	64.9%	35.1%	100.0%
Total	Number	157	192	349
	%	45.0%	55.0%	100.0%

4.6.4 Drug abuse and Gender

The findings in table 4.11 below indicate that drug abuse among classmates was associated with gender. The rate of drug abuse was more prevalent among boys with 42.9% than among girls with only 19.1%. Alcohol was the drug that students abused most. Stimulants, such as cocaine and miraa ranked second. This indicated that there was a tendency of girls getting into the habit of drug abuse even though it is not very common. This shows that drug abuse does not just affected male students but equally affects the female students too. These findings formed the foundation of the necessity to develop specialized programs on drug and substance abuse in learning institutions catering for both gender.

Table 4.11: Drug abuse and Gender among students

Respondents by gender		Do your classmate take drugs?		Total
		Yes	No	
Male	Number	90	120	210
	%	42.9%	57.1%	100.0%
Female	Number	26	110	136
	%	19.1%	80.9%	100.0%
Total	Number	116	230	346
	%	33.5%	66.5%	100.0%

4.6.5 Drug abuse and students' age

Table 4.12 below shows that the age at which students started abusing drugs was between 13 and 15 years. This also implied that by age 15 at least 19% of the students had started using drugs. There was an indication that by the age between 16-18 years, the rate of drug abuse increased to about 40% and by the age between 19-21 years, 70.8% of students in this age group were already abusing drugs. This information brings to our attention that drug and substance abuse is becoming a major challenge in Kenya and just like any other developing country, Kenya may be facing social economic problems that pose a great challenge to the young people. From the

students' general responses the drug sequence from tobacco and alcohol to use of marijuana becomes evident showing that drug abuse starts as an experimentation and later students get into the abuse of other substances. This information concurs with the studies done by Kandel and Chen (1995) who asserted that many drug abusers experienced with alcohol and tobacco and later move on to the harder drugs such as cocaine and heroine, and that this is a common observation by researchers to persons abusing drugs.

Table 4.12: Drug abuse and students' age

Students' age	Drug abuse among classmates		Total
	Yes	No	
13 - 15 years	26	111	137
	19.0%	81.0%	100.0%
16 - 18 years	73	112	185
	39.5%	60.5%	100.0%
19 - 21 years	17	7	24
	70.8%	29.2%	100.0%
Total	116	230	346
	33.5%	66.5%	100.0%

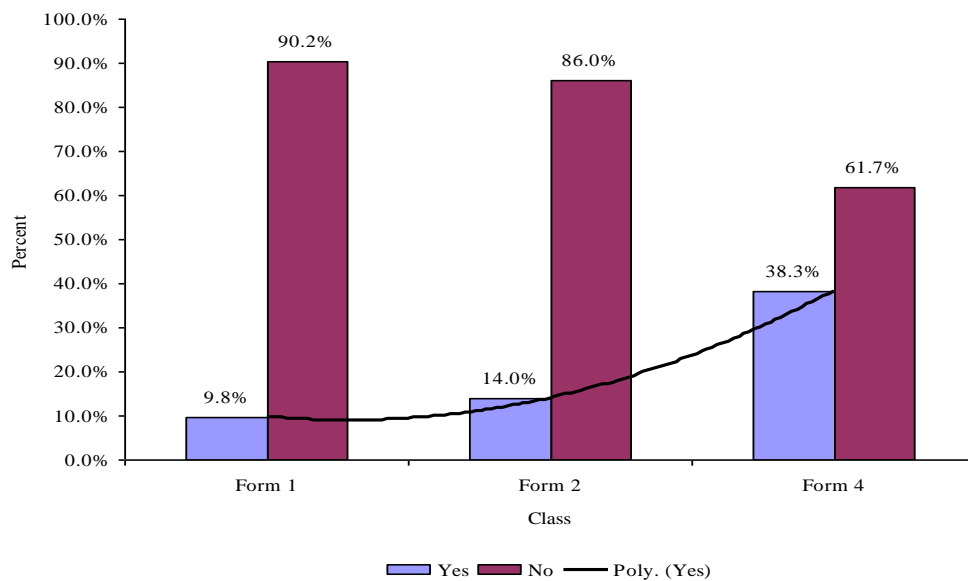
4.6.6 Frequency of drug abuse among students

Drugs and substances may not be addictive if individuals are not frequent users. In regard to the present study, students were asked to indicate whether their friends took drugs often or occasionally. The aim of this investigation was to find out the extent to which students abused drugs and other substances in secondary schools. The results indicated that the majority of the students abused drugs often, meaning that they had become addicted to drugs. As table 4.13 shows, 81% of the students were drug addicts while only 19% of them were occasional drug abusers. This information concurs with that of Gathumbi (2003), found in the introduction of this study that drug and substance abuse behaviour was on the increase in learning institutions.

Table 4.13: Drug abuse occurrence among students

Responses	Frequency	Percent
occasionally	66	19.0
often	281	81.0
Total	347	100.0

Table 4.13 shows the frequency of drug abuse among students in school. The findings showed that 81% of the students reported to have abused drugs quite often while 19% of them did abuse drugs occasionally. It was assumed that those who abused drugs occasionally, most probably were busy or were open to discuss their problems with counselling teachers and were assisted against drug abuse behaviour. This can be confirmed from the teachers' responses, which indicated that 84% of the counselling teachers had records of students who visited their offices for counselling sessions on drug abuse. 35% of the teachers from the 15 schools reported that they had many cases of students addicted to drugs and other substances.

Fig. 4.4: Frequency of drug abuse

4.6.7 Substance Abuse and bullying behaviour in secondary schools

Students were asked to indicate whether they had witnessed incidences where drug abuse resulted to students' bullying fellow students. The findings were that 41.3% of the students reported to have witnessed students bullying other students while under the influence of drugs, and 58.7% said they had not seen such incidences. The findings concurred with Kerachio (1994) who reported that drug abuse led students in learning institutions to bully others. In Kenya, such instances have occurred, where students under the influence of drugs have beaten up their teachers, raped them or killed fellow students (Kaguthi, 1994). More so, from their counselling sessions, counselling teachers reported cases of students getting involved in criminal behaviour like stealing, indulging into sex abuse and more so in bullying other students in the schools.

4.6.8 Drug abuse in relation to pocket money

To assess the relationship between drug abuse and availability of pocket money, the researcher sought to know the respondents' use of their pocket money in relation to buying drugs and substances. 13.3% of them admitted that they had used pocket money to buy drugs while 86.7% declined. This indicates that students who abused drugs had other sources of money, most probably from relatives. It could also be a pointer that students were involved in criminal activities that earned them money such as stealing from colleagues or their own parents.

4.6.9 Problems linked to pocket money and drug abuse among students

Certain problems in the school like stealing money from each other, hawking and money laundering occurred as a result of students' possession of money. Table 4.14

summarises the problems related to the use of pocket money and drugs among students.

Table 4.14: Problems resulting from students' pocket money and drugs

Drug Problems	Number	Responses %
Stealing	8	61.5
Behaviour disorder	6	46.2
Poor performance	5	38.5
Bullying	3	23.1
Strikes	2	15.4
Shaking	2	15.4
Being dirty	2	15.4
Hawking	1	7.7
Money laundering	1	7.7
Absenteeism	1	7.7
Commit suicide	1	7.7
Poor academic performance	1	7.7
Dropping out of school	1	7.7
Sex abuse	1	7.7
Burning schools	1	7.7

4.6.10 Implications of drug and substance abuse on students' education and health

The items considered in this section were meant to show students' awareness of the effects of drugs and substance abuse to their education and health. Accordingly, 68.6% of the students surveyed were aware that some of their fellow students dropped out of school as a result of taking drugs. When asked whether they believed that taking drugs assisted them in studying better, 26.4% of them admitted to harbouring such beliefs while 73.6% did not believe that drugs enhanced academic performance. The findings were consistent with Weinstein's view (1984), in his theory of optimistic bias, that certain individuals think that they are less likely to suffer health problems compared to other people. In assessing their risks, they may not realize the impact of their behaviour on their own health. Moreover, students tended to develop attitudes

contrary to reality, like the assumption that drug addiction can easily affect their friends and not themselves. This could lead to continued engagement in substance abuse which can be associated with a tendency to engage in other problem behaviours, such as rebelliousness and precocious sexual and delinquent activities as this study has found.

4.6.11 Knowledge and awareness of drug abuse signs

To assess the possibility of students' awareness of health risks associated with drug abuse, the researcher sought to know if the respondents knew certain signs associated with drug addiction. The findings revealed that students indeed knew quite well when their peers were involved in drug abuse. Table 4.15 gives the results of the findings.

Table 4.15: Health problems associated with drug abuse

Health problems	Number	Responses %
Nervousness and red eyes	248	77.0
Being confused, lack of co-ordination, memory loss	244	75.8
Being sleepy and tired	206	64.0
Anxiety, sweating, shaking and vomiting	200	62.1
Coughing, chest pains and headache	181	56.2
Being terrified and in a suicidal state	157	48.8

The findings presented in the table above indicate that students were aware of the health problems associated with drug abuse. 77% associated nervousness and red eyes with drug abuse while 75% of them associated drug abuse with being confused and in a state of lack of co-ordination. Another common indicator of drug abuse was sleepiness and tiredness, coughing and chest pains, anxiety, sweating, shaking and vomiting. The least common symptoms according to the students were being terrified and being in a suicidal state. These findings concurred with Ketcham and Asbury

(2000) who holds that these symptoms of substance abuse resembled other medical problems or psychiatric conditions.

4.6.12 Knowledge about the effects of drug abuse among students

The researcher wanted to find out if students did recognize the repercussions of drug abuse. To do so they were asked to indicate their experiential effects of addiction on substances and drugs. The findings captured in table 4.16 below indicate that majority of the students were unable to continue with their studies due to the drug addiction problem. The study's findings also showed that 71.6% of the students were affected. This was followed by a reasonable percentage of students getting expelled 63.6%, meaning that counselling teachers lacked the skills to counsel drug addicted students. Those students who fell sick represented by 32.4% of the cases. The findings match with those of Ndeti (2004), in his survey among drug abusers along the coastal region of Kenya where he found out that majority of youth who abused drugs were in secondary schools, and most of them were school drop outs and had health problems.

Table 4.16: Knowledge about effects of drug abuse on students

Effects	Number	Responses
Dropped out of school	234	71.6
Expelled	208	63.6
Being sick	106	32.4

4.6.13 Counselling programs on drug abuse in secondary schools

The respondents were asked whether they sought counselling as a way of dealing with problems resulting from drug abuse. 46.1% of them admitted to have sought counselling help while 53.9% of them had not gone for any counselling. This was an indication that students needed professional help to enable them come out of the addiction problem. The counselling teachers too expressed their view that indeed

there was need for professional counselling of students who abused drugs in secondary schools. Due to the seriousness of the problem counselling teachers invited professionals to talk to the students about drug issues. 60% of the counselling teachers confessed that they invited other experts to deal with drug abuse in schools while 40% did not. In dealing with the problem of drug abuse the teachers took such steps as suspending students out of school and referring them elsewhere for counselling. This shows how drug abuse is such a big problem even though many people fear discussing it. It is time the Kenya government declared drug abuse a catastrophe and began involving drug abuse professionals to handle the problem, rather than always handling it as a criminal offence among students.

4.7 Testing the Hypotheses of the Study

The study attempted to meet its objectives by testing the hypotheses set to find out whether relationships existed between independent variables and dependent variables.

The hypotheses are indicated as follows:

- H₀1: There is no significant relationship between drug abuse and various categories of secondary schools.
- H₀2: There is no significant relationship between drug abuse and the status of the schools.
- H₀3: There is no significant relationship between drug abuse and the type of the schools.
- H₀4: There is no significant relationship between drug abuse and the category of the schools.
- H₀5: There is no significant relationship between drug abuse and students psychosocial factors.

- H₀6: There is no significant relationship between drug abuse and the family environment.
- H₀7: There is no significant relationship between drug abuse and the school environment.
- H₀8: There is no significant relationship between drug abuse and students behavioural problems.

4.7.1 Relationship between drug abuse and the categories of secondary schools

To test the relationship between drug abuse and various categories of secondary schools, drug abuse was treated as the dependent variable while categories of secondary schools were treated as the independent variable. The dependent variable was measured by the number of classmates and friends in schools who abused drugs and substances. The categories of schools included boys, girls and mixed schools. The hypothesis was tested using chi-square test for independent sample; the test was conducted at 0.05 level of significance.

The study sought to know which category of schools was mostly hit by drug abuse problem. Table 4.17 below shows the results of the findings.

Table 4.17: Relationship between school category and drug abuse among classmates

Category of school	Classmate who abuse drugs		Total
	Yes	No	
Boys School	82	113	195
	42.1%	57.9%	100.0%
Girls School	16	95	111
	14.4%	85.6%	100.0%
Mixed School	18	22	40
	45.0%	55.0%	100.0%
Total	116	230	346
	33.5%	66.5%	100.0%

Calculated $X^2 = 26.914$ Critical $X^2 = 9.21$ DF = 2 Significance level at 0.05

The relationship based on the calculated X^2 of 26.914 and the critical X^2 value of 9.21 was significant at 0.05 level of significance. Based on the analysis, the null hypothesis which states that there is no relationship between drug abuse and school categories was rejected and the alternative hypothesis was accepted. The alternative hypothesis states that there is a relationship between drug abuse and school category. Therefore, it appears that the school categories could have an important bearing in the students' drug abuse among classmates. This information therefore, brings out the fact that in mixed schools drug abuse is a serious problem to many students, both boys and girls. It is therefore apparent that there is need for the government and the Ministry of Education to come up with strategies to address the problem of drug abuse in mixed schools as urgently as possible. There is also need for a serious evaluation of the usefulness and place of mixed schools in Kenya, and if the problems emanating from them far outweigh the benefits then considerations can be made to abolish them altogether. This study also indicates that drug abuse is not a big problem in pure boys and girls schools. In girls' schools, drug abuse was not a serious issue whereas in boys' schools the abuse was slowly becoming an issue of major concern. This seems to suggest that boys were influencing girls into the behaviour of drug abuse. The

study concluded that peer influence was stronger in mixed schools than in the other categories of schools in Nairobi Province.

Table 4.18: Relationship between school category and drug abuse among friends

Category of school	Friends who abuse drugs		Total
	Yes	No	
Boys School	99	98	197
	50.3%	49.7%	100.0%
Girls School	35	76	111
	31.5%	68.5%	100.0%
Mixed School	23	18	41
	56.1%	43.9%	100.0%
Total	157	192	349
	45.0%	55.0%	100.0%

Calculated $X^2 = 12.373$ Critical $X^2 = 9.21$ DF = 2 Significance level at 0.05.

The findings in table 4.18 indicated that drug abuse among friends was highest in mixed schools with 56.1%. This was followed closely by boys' schools where the rate was 50.3% and the lowest rate being girls schools with 31.5%.

The relationship based on the calculated X^2 value of 12.373 and a critical X^2 value of 9.21 was significant at 0.05 level of significance. This finding reveals that mixing girls and boys in the same school increased the chances of drug abuse. The information shows that most probably teachers were finding it difficult to instill discipline in mixed schools, as drug abuse and addiction was a common behaviour, leading to indiscipline among students.

4.7.2 Relationship between drug abuse and the status of the schools

Table 4.19 summarises the relationship between drug abuse and students sharing the same classes (classmates), in national, provincial and district schools.

Table 4.19: Relationship between status of the schools and drug abuse among Classmates

Status of the school	Classmates who abuse drugs		Total
	Yes	No	
National	34	75	109
	31.2%	68.8%	100.0%
Provincial	55	111	166
	33.1%	66.9%	100.0%
District	27	44	71
	38.0%	62.0%	100.0%
Total	116	230	346
	33.5%	66.5%	100.0%

Calculated $X^2 = .924$ Critical $X^2 = 5.99$ DF = 2 Significance level at 0.05

Earlier studies (Ngare, 2007) have tended to show that students learn from their peers certain behaviour when they are together. Therefore, the researcher aimed at finding out whether the findings of such studies would concur with the situation in the status of secondary schools in Nairobi Province. In order to find out whether students influenced each other in abusing drugs, they were asked to indicate if they had classmates who used drugs. It is apparent from table 4.19 that drug abuse among classmates was higher in district schools, followed by provincial schools. National schools do not seem to be under a serious threat from drug abuse even though there was still a percentage of students abusing drugs. Drug abuse among classmates ranged from 31.2% in the national schools, 33.1% in the provincial school, to 38% in the district schools.

To find out whether there was a relationship between status of the school and drug abuse and among classmates, the data were subjected to a chi-square test. The relationship based on the calculated X^2 value of 0.924 and critical X^2 value of 5.99 was significant at 0.05 level of significance. Based on that analysis, the null hypothesis which states that there is no relationship between drug abuse and the status

of the schools was rejected and the alternative hypothesis that there is a relationship between drug abuse and the status of the school accepted. Therefore, it appears that the status of the schools did have influence on drug abuse among students who were studying in the same class.

In this study, students who were in national, provincial and district secondary schools were asked to indicate their friends who were in other classes and used drugs. The results are shown in table 4.20.

Table 4.20: Relationship between status of the schools and drug abuse among students

Status of the school	Friends who abuse drugs		Total
	Yes	No	
National	40%	66	110
	40%	60%	100.0%
Provincial	75	92	167
	49.9%	55.1%	100.0%
District	38	34	72
	52.8%	47.2%	100%
Total	157	192	349
	45.0%	55.0%	100.0%

Calculated $X^2 = 2.872$ Critical $X^2 = 5.99$ DF =2 Significance level at 0.05

The findings indicate that drug abuse among friends was highest in District schools, followed by Provincial schools and lastly by National Schools. It showed that drug abuse among friends in national schools was 40%, 52.8% in district schools and 44.9% in provincial schools. Drug abuse decreased with the status of the schools and therefore there was some association between drug abuse among friends and the status of the schools.

The relationship based on the calculated X^2 value of 2.872 and the critical X^2 value of 5.99 was significant at 0.05 level of significance. Based on the analysis, the null hypothesis which states that there is no relationship between drug abuse and friends in schools, was rejected and the alternative that state that there is a relationship between drug abuse and status of the school accepted. This finding implied that the status of the schools did have influence on drug abuse among students who were friends.

4.7.3 Relationship between drug abuse and the types of the schools

It was important to assess students in these institutions to find out which type of school was safer. Both types of institutions were important in Kenya because students who cannot afford to pay for boarding schools access education at a cheaper rate in a day school. The results are indicated in table 4.21.

Table 4.21: Relationship between types of the schools and drug abuse among students

Type of school	Classmate who abuse drugs		Total
	Yes	No	
Day	36	89	125
	28.8%	71.2%	100.0%
Boarding	80	141	221
	36.2%	63.8%	100.0%
Total	116	230	346
	33.5%	66.5%	100.0%

Calculated $X^2 = 1.961$ Critical $X^2 = 3.84$ DF = 1 Significance level at 0.05

The findings in table 4.21 indicate that drug abuse among classmates does not differ by a big margin between boarding schools and day school. The data, when subjected to a chi square analysis to test for possible relationships between drug abuse and the types of schools gives the results as explained in the next paragraph. The relationship based on the calculated X^2 value of 1.961 and then critical X^2 of 3.84 was not

significant at 0.05 level of significance. Based on the analysis, the null hypothesis which states that there is no relationship between drug abuse and types of schools was accepted. Therefore, it implies that the type of secondary schools, day or boarding, have no influence on drug abuse among students in the same class in Nairobi Province.

Within the day or boarding schools, students were asked to indicate if drug abuse problem was there among their friends. This was with the aim of finding out if there was a network of friends among students abusing drugs. The findings are shown in table 4.22.

Table 4.22: Relationship between types of the schools and drug abuse among Students

Type of school	Friends who abuse drugs		Total
	Yes	No	
Day school	60	66	126
	47.6%	52.4%	100.0%
Boarding school	97	126	223
	43.5%	56.5%	100.0%
Total	157	192	349
	45.0%	55.0%	100.0%

Calculated $X^2 = .553$ Critical $X^2 = 3.84$ DF = 1 Significance level at 0.05

According to the findings in the table above, in day schools, 47.6% of the students had friends abusing drugs while in boarding school the rate was 43.5%. Although it appeared that drug abuse among friends was higher in day schools, basing the relationship on calculated X^2 of 553 and the critical X^2 value of 3.84, it was not significant at 0.05 level of significance. The null hypothesis which states that there is no relationship between drug abuse among students and school types was accepted. This implies that variations of learning institutions may not hinder students' drug and

substance abuse. What is of importance is the education and the formation a child had received from the family environmental background as it is well captured in social cognitive theory (Bandura, 1977).

4.7.4 Relationship between drug abuse and students' family background

A number of studies have suggested that there are risk factors which can lead adolescents to the abuse of alcohol and other drugs. Johnson et al. (1990) described three basic categories of risk factors: demographic, social and behavioural. Lang (1985) suggested that individual characteristics of adolescents are also involved in the onset of substance abuse. In order to find out whether these family factors could influence drug abuse among students in secondary schools, students were asked to indicate whether they had parents who used alcohol and other drugs. Results indicated that there was a large group of students who learnt using drugs from their parents as table 4. 23 shows.

Table: 4.23: Analysis of students' family background against various responses

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
Taking drugs because my parents do so	7	11	10	18	66	112
	70.0%	68.8%	66.7%	38.3%	27.5%	34.1%
	2.1%	3.4%	3.0%	5.5%	20.1%	34.1%
	3	5	5	29	174	216
	30.0%	31.3%	33.3%	61.7%	72.5%	65.9%
	.9%	1.5%	1.5%	8.8%	53.0%	65.9%
Total	10	16	15	47	240	328
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	3.0%	4.9%	4.6%	14.3%	73.2%	100.0%

Calculated $X^2 = 26.366$ Critical $X^2 = 6.63$ DF = 1 Significance level at 0.05

According to the results based on table 4.23, one could make the assumption that parents contributed much to students' drug abuse. Students go to secondary schools when they are already introduced into drug abuse. The students then influence each other in schools. The data were then subjected to a chi-square analysis to test for possible relationship between students' drug abuse and family background. The null hypothesis being tested was: there is no relationship between students' drug abuse and family background. The relationship based on the calculated X^2 value of 26.366 and the critical X^2 value of 6.63 was significant at 0.05 level of significance. Based on that analysis the null hypothesis therefore was rejected and the alternative hypothesis accepted. The accepted hypothesis states that there is a significant relationship between students' drug abuse and their family background. This could mean that students' family environment is a risk factor which can lead students to the abuse of drugs.

4.7.5 Relationship between drug abuse and failure at school

In order to find out how failure at school could lead students to drug abuse, students were asked to indicate whether they had friends in school who experienced problems of various kinds. The results are presented in table 4.24.

Table: 4.24: Analysis of students School problems against various responses

I use drugs because of school problems	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
	13	9	8	17	64	100
54.2%	64.3 %	53.3%	35.4%	27.7 %	33.4%	
3.9%	2.7%	2.4%	5.1%	19.3 %	33.4%	
11	5	7	31	167	221	
45.8%	35.7 %	46.7%	64.6%	72.3 %	66.6%	
3.3%	1.5%	2.1%	9.3%	50.3 %	66.6%	
Total	24	14	15	48	231	332
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	7.2%	4.2%	4.5%	14.5%	69.6 %	100.0%

Calculated $X^2 = 16.782$ Critical $X^2 = 9.21$

DF = 1

Significance level at 0.05

The results in table 4.24 show that a large number of students experienced school problems. This observation was based on the high percentage of students' response of 64.3%, who had experienced various problems in school.

The data obtained were then subjected to a chi-square analysis to test for possible relationship between drug abuse in relation to school problems. The results based on the calculated X^2 value of 16.782 and the critical X^2 value of 9.21 was significant at 0.05 level of significance. This means that the null hypothesis was rejected and the alternative one accepted. Therefore, school problems could lead students to abuse drugs. This finding is consistent with position by Kikuvi (2009) who showed that there is indeed a relationship between juvenile delinquency and schooling problems.

4.7.6 Relationship between drug abuse and peer pressure

Peer influence is a social risk factor that lead to drug abuse among students. Earlier studies have shown that when students join other institutions they influence each other in their behaviour (Johnson et al., 1990). In order to find out if this current study concurs with the previous ones, students were asked to indicate whether their classmates used drugs to belong to their peer groups. The results are summarised in table 4.25.

Table 4.25: Students who abuse drugs due to peer pressure

	Yes	No	total
Peer pressure influence	74	42	116
	41.6%	25.0%	33.5%
	21.4%	12.1%	33.5%
	104	126	230
	58.4%	75.0%	66.5%
	30.1%	36.4%	66.5%
Total	178	168	346
	100.0%	100.0%	100.0%
	51.4%	48.6%	100.0%

Calculated $X^2 = 10.652$ Critical $X^2 = 6.63$ DF = 1 Significance level at 0.05

The data obtained were then subjected to a chi-square analysis to test if there was any relationship between drug abuse and the influence by the peer group. The minor null hypothesis tested was: there is no relationship between students' drug abuse and the peer pressure. The results were based on the relationship which was calculated using a X^2 value of 10.652 and the critical X^2 value of 6.63, showing that it was significant at 0.05 level of significance. The original null hypothesis was therefore rejected. This showed that peer influence was a risk factor that could lead students to drug abuse.

4.7.7 Relationship between drug abuse and availability of drugs

Another set of preconditions for drug abuse and dependency includes availability. A person cannot become a drug abuser unless a drug is physically available. In addition, however, availability is affected by social norms such as factors within the community conducive to drug use, including level of parental or guardian supervision, lack of punishment for alcohol and drug offences, lack of alternative activities, and portrayals of alcohol and other drug use by friends and the media as a glamorous and

healthy activity, prices (economic availability), and personal values (subjective availability). See table 4.26.

The primary focus of Kenya antidrug policy has been to attack the physical availability of illicit drugs through law enforcement efforts aimed at disrupting the production, transport, and sale of drugs. Even though this focus has increased drug-related (arrests there are people who were imprisoned on drug charges) illicit drugs are still widely available.

Marketing techniques for both licit and illicit drugs can alter social, economic, and subjective availability. Key components of marketing include the promotion and advertising of particular product lines to appeal to particular subpopulations of the consuming public, development of a product line that can be targeted to subpopulations within the larger community of consumers, pricing strategies to attract new buyers, and identification of retail outlets for sales.

Table 4.26: Analysis of students who abuse drugs by availability of drugs

Availability of the drugs and availability of money			
	Yes	No	Total
Availability of drugs	42	74	116
	48.8%	28.5%	33.5%
	12.1%	21.4%	33.5%
Availability of money	44	186	230
	51.2%	71.5%	66.5%
	12.7%	53.8%	66.5%
Total	86	260	346
	100.0%	100.0%	100.0%
	24.9%	75.1%	100.0%

Calculated $X^2 = 12.039$ Critical $X^2 = 6.63$ DF = 1 Significant level at 0.05

Table 4.26 shows that 48.8% of the students abused drugs because they were available money. Availability of drugs then led to students abuse the same. The data were then subjected to a chi-square analysis to test for possible relationship between drug abuse and drug availability.

The relationship based on the calculated X^2 value of 12.039 and the critical X^2 value of 6.63 was significant at 0.05 level of significance. The analysis therefore shows that the null hypothesis was rejected and the alternative hypothesis which stated that there was a relationship between drug abuse by students and the availability of drugs was accepted. This information could mean that students had various means of getting drugs.

4.7.8 Relationship between drug abuse and students behavioural problem

To test the relationship between drug abuse and students' behavioural problem, the level of drug abuse was treated as the dependent variable and incidences of bullying in school as the independent variable. The dependent variable was measured by the number of classmates and the number of friends in school who were known to abuse drugs and other substances. Table 4.27 presents the findings.

Table 4.27: Analysis of drug abuse and students' behaviour

Incidences of bullying behaviour at school					
		Yes	No	Total	
Drug abuse among classmates	Yes	63	102	163	
		37.4%	62.6%	100.0%	
		43.6%	51.3%	48.1%	
		34	36	70	
		48.6%	51.4%	100.0%	
Drug abuse among friends	No	24.3%	18.1%	20.6%	
		45	61	106	
		42.5%	57.5%	100.0%	
		32.1%	30.7%	31.3%	
		140	199	339	
Total		41.3%	58.7%	100.0%	
		100.0%	100.0%	100.0%	

Calculated $X^2 = 11.185$ Critical $X^2 = 6.63$ DF = 1 Significant level at 0.05

The relationship based on the calculated X^2 value of 11.185 and the critical X^2 value of 6.63 was significant at 0.05 level of significance. The null hypothesis which states that there was no relationship between drug abuse and bullying in schools was rejected and the alternative hypothesis accepted. The stated hypothesis states that, there was a relationship between drug abuse and bullying in schools. This also meant

that conditions such as aggressiveness, delinquency, and mental disorders are often linked with substance abuse and addiction. Experiences such as school unrest, physical and sexual abuse have also been identified as potential risk factors in schools.

4.8 Implications for School Interventions

Various consequences are likely to occur if the drug abuse problem is not keenly addressed in schools and the society at large. To prevent students from dropping out of school and abusing drugs, their energies can be diverted towards healthier and more useful undertakings. This can be done by using preventive interventions designed specifically to address personal and social factors that can place students at the risk of drug abuse. Schools therefore, can reduce these young peoples' propensity to abuse drugs and getting into other unhealthy behaviour if the implications of drug abuse are well understood and proper interventions put in place. The various implications are discussed and are followed by preventive interventions as follows.

4.8.1 Implications of drug abuse on students

If counselling teachers are not skilled to handle students addicted to drugs, the problem is likely to persist. Students are likely to continue dropping out of school because of poor concentration in their studies. Therefore, this would make the students more frustrated and lead them to practise *streetism* which is already a social problem in Kenya.

- From the study it was clear that students abuse drugs because they lack proper guidance from parents and learnt the behaviour from them. This means that parents have lost their positions as role models to children. Unless drastic

measures are taken, then the drug problem is likely to persist. Parents seem to have abdicated their parental responsibilities.

- Students addicted to drugs are not advised on the dangers of the vice. The implication is that they will continue abusing drugs and this aggravates their already existing problems leading to death.
- The main drug commonly abused in schools is alcohol. The implication is that students would become alcoholics if they are not professionally counselled and advised on the eminent dangers.

4.8.2 School interventions

- There is need for a drug education program. This includes organising seminars and developing clubs in schools to discuss various ways of curbing the abuse of drugs. NACADA, for instance, can design an innovative education intervention program to reduce the rate of abuse of drugs in schools.
- There is also a need to strengthen counseling services in schools. According to the findings of this study, most students abuse drug because of family background and stresses at home. Most probably they may have had difficult childhoods including abuse, neglect, and family breakdowns. For these students, drugs provided a way to deal with their troubles in order for them to feel better. These circumstances may force students to drop out of school, leaving them with very limited choices in life. Therefore as a counselling teacher in a school, it is necessary to be equipped with skills and knowledge about the root causes of drug abuse problems among students so that professional counselling can be offered.
- There is need for a drug assessment program. This is the process used to identify and evaluate the general situation of a student who may be using drugs. The

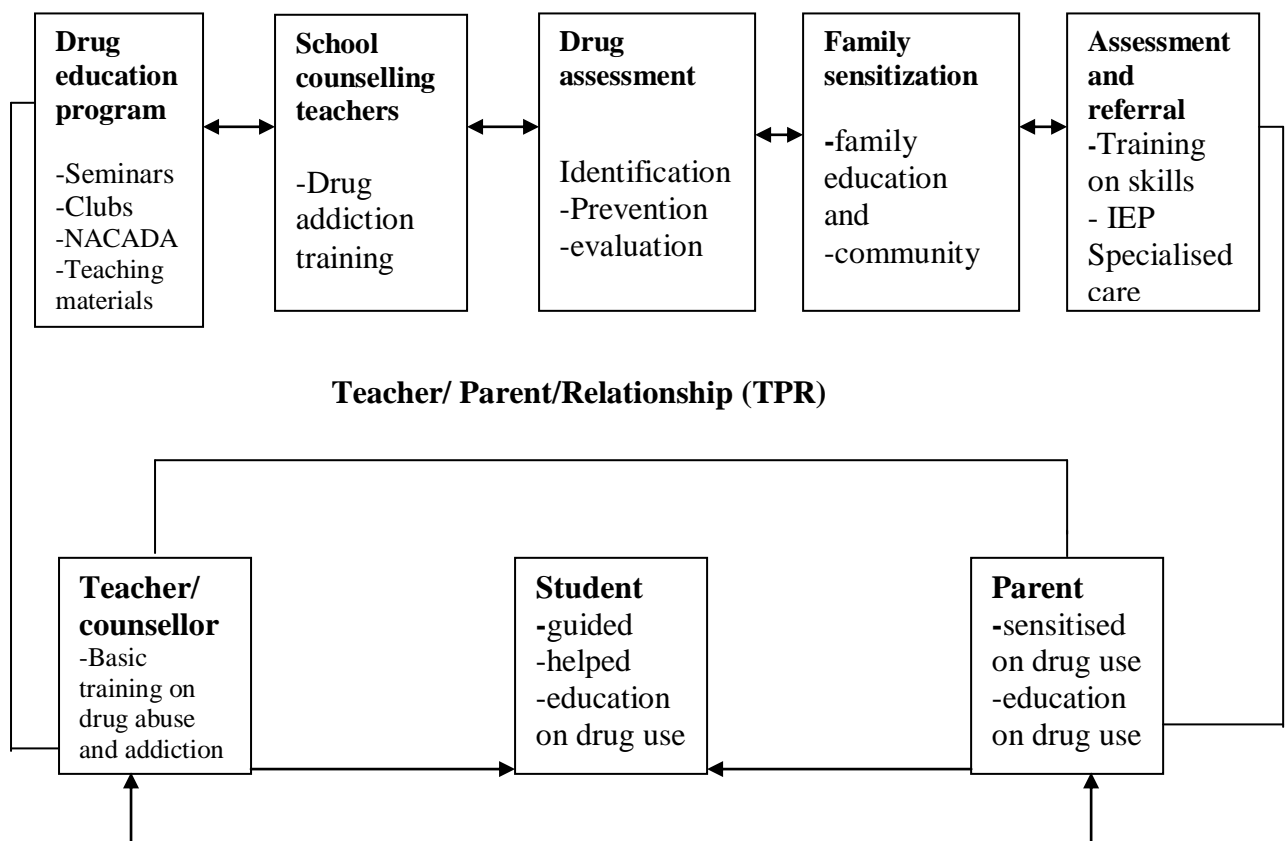
teacher learns the student's history by listening to him/her and the family. This process is critical because the teacher would determine the specific goals and preventive measures that can make the student understand the school life style. It requires an attitude of empathy from the counselling teachers. In assessment, a questionnaire with a good set of questions is an important tool to gather information from the students. A drug assessment kit that analyses urine samples can also help discover students who use drugs.

- There is need for parents' sensitization and education. The family shall be involved in drug education prevention because the students who abuse drugs often live with their families. The effect of a drug abuser's habit may have profound consequences on family members. Everyone who interacts with a drug abuser suffers directly or indirectly from his/her behaviour. The family members suffer because they do not understand the dynamics of a drug dependent person. Family education therefore aims at helping the parents and other members understand and cope with the situation and to prevent any trigger that may lead anyone to become drug dependant.
- There is need for assessment and referral. The counselling teacher with basic training in counselling can effectively assess a student with drug abuse problem. A physical assessment is done to find out physical signs that show on the abuser's body such as body hygiene, the presence of needle marks or sores on the arms and legs, dehydration, body weight and others. The assessment relies on a good drug specific history and procedures that include questions on drug abuse pattern. Once it has been established that the student is abusing drugs, she/he would need special care and counselling in life skills. The counselling teacher may not be in a position to cater for all the needs of a student abusing drugs and a referral to a

specialised service is appropriate. A counselling teacher shall therefore prepare an individualised educational program (IEP) for the student as a guide in her/his recovery process.

In conclusion, if intervention measures are not urgently put in place then the country is likely to lose a very important human resource to illicit drugs. Therefore a school drug preventive and rehabilitation program should be devised to guide teachers, educators and other stakeholders involved in the prevention of drug abuse among students in secondary schools and rehabilitation of those abusing drugs. The proposed drug abuse intervention program is illustrated as follows.

Fig 4.5: School drug prevention program



Source: Researcher's proposed framework.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section contains the summary and conclusion of the study based on the findings already detailed in chapter four. It also provides recommendations based on the study's conclusions which can therefore lead to appropriate interventions to improve or salvage identified weaknesses in the education system in secondary schools in Nairobi Province. From the policy recommendations, areas of further research are drawn. The study sought to achieve the following research objectives, which were the basis of this research.

- i. Determine the various substances commonly abused by secondary school students in Nairobi Province;
- ii. Assess the incidences of substance abuse in secondary schools in Nairobi Province;
- iii. Determine the factors that contribute to substance abuse by secondary school students in Nairobi Province;
- iv. Investigate students' behaviour related to substance abuse;
- v. Determine the incidences and extent of drug abuse by the type of secondary school in Nairobi Province;
- vi. Determine the incidences and extent of drug abuse by the category of school in Nairobi Province;
- vii. Investigate the incidences and extent of drug abuse by the status of secondary school in Nairobi Province; and,
- viii. Develop the framework for specialised student assistance programs.

5.2 Summary of the Study

5.2.1 Various substances commonly abused by students

This study found out that the common drugs and substances abused by students in schools were alcohol, tobacco, hallucinogens (aerosol, gasoline, petrol spray, glue) and stimulants (cocaine, miraa). The study unveiled that the same drugs were more in demand by students compared to hard drugs that were subjects of experimentation and new in the market. It was evident that a reasonable percentage of students had moved from abusing alcohol to hard drugs like narcotics. The abuse of hard drugs was becoming common for older students. Female students were getting introduced to drug abuse, though male students who abused drugs were more in number.

The study further found out that the counselling teachers in various schools handling students with drug addiction problems did not have the required skills to counsel such students. This made them feel incapable of dealing with students who were drug addicts. The only solution was to send such students out of school as most of them were involved in school behavioural problems such as bullying and other forms of indiscipline. NACADA (2007) had earlier found out that secondary school students, both girls and boys, dropped out of school due to drug abuse. Some of them joined drug rehabilitation institutions while others ended up in the streets. In Kenya, drug abuse is mostly addressed by police, as it is a criminal offence. The students who abused drugs had problems revealing this information for fear of being jailed (Gathumbi, 2003). In this regard students' drug abuse remains largely unexplored and understood. There is therefore urgency to develop specialised interventions in the Kenyan learning institutions to stem the vice.

5.2.2 Prevalence of substance abuse in secondary schools in Nairobi

The study established that most students experimented with drugs and other substances particularly alcohol. The counselling teachers had records establishing that 80% of students were already alcohol addicts before joining secondary schools. It was also found out that students were experimenting with hard drugs in schools and formed a network among themselves in classes. The frequency of drug abuse among students increased with class, age, and also varied by gender where male students abused drugs more than their female counterparts. It was reported that 42% of male students were already addicted as compared to female students which formed 19.1%. Students reported that when the use had become more frequent, they developed negative effects. These included poor performance at school, legal problems, and interpersonal problems.

5.2.3 Factors that contribute to substance abuse among secondary school students

The study found out that there was a significant relationship between drug abuse and the category of school a student attended. The different categories of schools were boys/girls/mixed. Mixed schools had more cases of drug abuse than boys or girls schools. It was found out that mixed schools had internal problems that were related to drug and substance abuse among students. Girls' schools did not show alarming drug abuse problem, but boys' schools did. This implied that the peer influence among girls and boys was higher when they were in the same school. It was suggested that the problem of drug abuse was bound to worsen in mixed schools unless such schools were abolished. The study suggests that there is need to re-evaluate the place

of mixed schools in Kenya and that it would be desirable to have separate institutions for both boys and girls.

The other major finding was that peer pressure, family background, frustrations and stress at home, were the major reasons as to why students abused drugs. Availability of drugs and easy access to them, failure at school and glorification of drugs by the mass media significantly influenced and contributed to drug and substance abuse in schools within Nairobi.

5.2.4 Identify students' behaviour which were related to substance abuse

The study found out that students started to engage in bad behaviour due to drug abuse and addiction. School unrests and strikes continued to occur in secondary schools. Teachers did not know how to handle students with certain behavioural disorders like having suicidal tendencies, getting involved in money laundering, sex abuse and others. The only solution they thought best was to expel the students out of school. Teachers were not equipped with the necessary skills to handle drug addiction in schools.

Other effects of drug abuse among students were health related. Among those who abused drugs most often got sick and were absent from schools. They often became dirty and lost self hygiene. Teachers reported that in schools indiscipline had gone up and school dropout was on the increase. They felt that they needed proper specialised educational training and programs in order to handle such problems. They emphasised that such students did not fit in the present existing categories of special needs education and they did not have the skills to handle drug addiction problems.

5.3 Conclusion

It was noted that the problem of drug abuse is a part of a larger, complex set of problems. The issues are related to the control of illegal trafficking of drugs, and development. These are perhaps at the core of the problem interrelated, to the students' family background and school environments. Moreover, the solutions for drug abuse problems in schools according to this study were based on the findings included in this section.

Based on the findings, the study concluded that the following were the most commonly abused drugs and substances in schools: alcohol, tobacco, hallucinogens (aerosol, gasoline, petrol spray, glue) and stimulants (cocaine, miraa).

The study also concludes that the level and frequency of drug abuse among friends and classmates increased with class, age, and also varied by gender, where boys abused drugs more than girls. There was some link between bullying in schools and drug abuse and students had other sources of money to procure drugs other than their pocket money, which should be investigated. This pointed to the fact that students needed to be closely monitored and counselled so as to eradicate bad behaviour or influence.

The study further concludes that there was a significant relationship between drug abuse and the category of the school. Mixed schools had more cases of drug abuse than boys or girls schools. It was also concluded that the status of a school (whether national/provincial/district) did influence or contribute to cases of drug abuse in

schools. Likewise in Nairobi, the level of drug abuse was the same regardless of whether a school was day school or boarding school.

The other major finding and conclusion was that peer pressure, family background, frustrations and stress at home, did contribute significantly to the level of drug abuse in schools while availability and access to drugs, failure at school, and influence by the mass media significantly influenced students into drug abuse in school within Nairobi. Therefore schools could work closely with the wider community and other stakeholders to sensitise students on the vice in schools, in order to curb the problem.

The study also concludes that there is an association between drug abuse in schools and students behavioural problems such as bullying. Cases of bullying increased with the number of students involved in drug abuse. Mechanisms should be established for monitoring behaviour change among students. Consequently corrective measures should be put in place.

From the study it is noted that students who abused drugs operated in a network that covered all drug users in the whole school.

Another conclusion is that students are aware of the risks of drugs and other substance abuse, and yet continue abusing them. Therefore, if there is no change of attitude drug abuse is likely to continue. This could lead to an escalation of the vice among students.

It is also apparent from this study that students with addiction problem were not adequately protected against the vice. They were not accorded special care and protection. It is important to keep in mind that not all students exposed to drugs were affected the same way. Some students displayed relatively mild forms of impairment, such as displaying short attention spans and exercising poor judgment while others had more serious problems such as the inability to follow directions, engaged in highly disruptive behaviour, and had severe learning difficulties.

In this study drug abuse was found to be a real problem in all schools that were investigated. Drug dealing was also found to be one of the thriving business in Nairobi, Kenya's capital city among other businesses. As Gelinas (2006) asserted, there were many drug peddlers in Kenyan schools and students accessed drugs in supermarkets. His findings concurred with the present study proving that drug abuse was a real challenge among students and youth in general. A conclusion from this observation is that the schools and provincial administrators, counselling teachers and parents should work together so as to reduce the vice. In a word, if intervention measures are not urgently put in place, then the country is likely to lose a very important human resource to illicit drugs.

5.4 Recommendations

Having found out the causes, effects, implications and applicable ways in respect to drug abuse, this study presents proposals on how to solve the problem of drug and substance abuse in schools. It is only apt that at this stage an effort be made to address this lacuna to policy makers, educational planners, implementers and those willing to do research on abuse of drugs and substances in learning institutions. This emanates

from the consideration of what the status of the law is, the causes leading to drug abuse, who is involved in the alleviation of the abuser's needs and *modus* of such assistance.

Teachers should seek to acknowledge students's feelings before dealing with their counselling. This conveys the message that the feelings themselves are not wrong but the way in which they are acted upon may need to be altered. This approach often results in strengthening a student's desire to function within prescribed limits. Discussion of counselling and feelings helps students to develop the ability to distinguish between wishes/fantasies and realities, integrate their experiences, and gain self-control. Allowing students to make some choices in the classroom setting encourages a sense of responsibility and builds problem-solving skills.

In addition, counselling teachers working with the drug-affected students should view the home as an integral part of the curriculum, since research indicates that early intervention programs result in long-term positive change only when parents/caregivers involvement is emphasized. A genuine interest in the well-being of parents/caregivers can assist in establishing a strong home-school partnership.

The recommendations herein, though in no way exhaustive, would go a long way in facilitating formulation of requisite policy, procedures and principles. The recommendations will transcend the whole spectrum of drug abuse including, the local and national situation. They are as hereunder.

5.4.1 Policy formulation and implementation

In all cases, the MOE through the inspectorate should ensure that secondary schools have functional drug addiction counselling programmes to ensure that students who abuse drugs and substances access specialised interventions.

It is necessary to enact a policy and increase the number of trained counselling teachers who are skilled on drug addiction counselling. Many students who abuse drugs and other substances, develop long term addiction – related sicknesses. Just as HIV/AIDS was declared a national disaster DRUG ABUSE among young persons should so be declared.

The government should invest in educating teachers on drug addiction counselling and prevention. This calls for curriculum developers to ensure that teacher training programmes include the education of children with behaviour disorders, and drug and substance abuse.

NACADA needs to prioritise and improve coordination, and co-operation among professionals, educationists, human rights and antidrug activists agencies with regard to specialised programs for students in learning institutions. In designing such programs, it is critical that basic principles of students' protection be made integral to any drug operation aimed at the youthful population.

5.4.2 Practise on drug abuse rehabilitation.

The study establishes that there is high demand for services of juvenile drug and substance abuse rehabilitation institutions. The MOH through NACADA should

organise programmes for counsellors, drug abusers and the communities to promote the understanding of health risks of drug abuse. There is also need to put up detoxification facilities and youth friendly referrals centres for rehabilitating students dependent on drugs.

5.4.3 The school curriculum.

The current curriculum needs revision to ensure sequence, progress and continuity of messages relating to the declaration of national and international war on drug abuse and the plight of the youth. There is need to introduce drug therapy programmes in schools for proper identifications of students with drug abuse problem and prevention of drug abuse.

5.4.4 Secondary and tertiary prevention

It is important for NACADA to identify drug abuse strategies in secondary schools in order to know the magnitude of the abuse so as to design specialised intervention programmes. Students identified to have drug abuse problems need close monitoring to prevent further spread of the problem to other students.

Students found to have serious drug addiction problems shall be considered as students in need of special education and their cases treated with consideration as in the category of children in need of special care and protection.

5.4.5 Urgent need to consider students with drug addiction disorder as special needs students

Students with drug addiction disorder should not be expelled from schools but should receive professional care and help. They need intensive counselling in order to overcome the drug dependency. Those involved in helping them should treat them as students with special needs showing different and individual problems. These individual differences should be treated specifically depending on the family environment. Drug peddlers should be arrested and prosecuted.

5.4.6 Involvement of all the stakeholders in looking for a workable solution

All the stakeholders should be involved in coming up with a workable solution. Drug addiction is a preventable disease. Results from NIDA-funded research have shown that prevention programs that involve the family, schools, communities, and the media are effective in reducing drug abuse. Although many events and cultural factors affect drug abuse trends, when the youth perceive drug abuse as harmful, they reduce their drug taking. It is necessary, therefore, to help the youth and the general public to understand the risks of drug abuse and for teachers, parents, and healthcare professionals to keep sending the message that drug addiction can be prevented. Such a solution may reduce the cases of drug abuse in the Kenyan schools.

5.5 Suggestions for Further Research

The results of this study shall not be generalised to apply to the whole country. The study with its limitations is only a general survey carried out on a small number of students in Nairobi Province. Consequently, other studies on the same topic can be replicated in other provinces.

- A comparative study to establish students' drug abuse behaviour and non drug abuse behaviour is required. In this case drug abuse students can be considered as special needs learners.
- A study is required to research on how drugs are made available in schools to ensure appropriate preventive measures.
- A study would be necessary to find out the effectiveness of drug rehabilitation institutions in order to come up with models related to education of students rather than curative measures.

REFERENCES

- Amayo, G.N. (1994). *International Institute for Prevention of Drug Abuse: A Handbook for Primary and Secondary Teachers' Guidelines in Drug Dependence Preventive Education*. Nairobi: Lama Limited Printers.
- Arne E. H., National Institute of Public Health, Geitmyrsveien 75, N-0462 Oslo, Norway.
- Australian Drug Foundation (ADF),1999. Drug Nexus in Africa (DNA) 1998, National Drug Strategy Household survey, (NDSHS) Report 1995 -1997).
- Borg, W. R. and Gall, M. D. (1989).*Educational Research; An Introduction*, (5th ed) New York: Longman.
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bachman, G., Johnston, L., Patrick M., O'Malley, and Jerald, G. (2000). "*Monitoring the Future National Results on Adolescent Drug Use: Overview of Key Findings*, Available from <http://www.monitoringthefuture.org>; on line.
- Donna, R. (1989). *Drug Exposed Babies: Research and Clinical Issues*. ZERO TO THREE 9, 5 1-7. ED 311 678.
- Fetsch, R.J. and Yang, R.K. (1990). *A ranking of critical economic and social issues facing Colorado families by three groups of Coloradans*. Unpublished raw data.
- Frolenzano, R., Urzua, E., Mantelli, V., Martini and Zalazar M. (1982). Pattern of Drug alcohol and Tobacco use among high school students in Santiago.
- Fraenkel, J. R. and Wallen N. E. (2008). *How to Design and Evaluate Research in Education*, (7th ed) New York: McGraw - Hill.

- Gathumbi, A.M. (2003). *Family and Peer Influences on substance abuse among secondary school students in Thika District* Unpublished PGDE project, Catholic University of Eastern Africa.
- Gay, L. R. (1981). *Education Research: Competencies for Analysis and Application*, Charles Merrill Publishing Co. Columbus.
- Gelinas, M. (2006). *How to Overcome alcoholism*. Nairobi: Paulines Publications Africa.
- Kaguthi, J. (2004). *Youth in Peril: Alcohol and Drug Abuse in Kenya*. Nairobi: Baseline Survey report.
- Kandel, D. and Chen B. (1995). The natural history of Drug use from adolescents to mid thirties in a general population sample. *American Journal of the Public Health* 85: 41 – 47.
- Kandel, B., Yamaguchi K., and Kevin, F. (1992). Stages of Progression in Drug Involvement from Adolescence to Adulthood: Further Evidence for the Gateway Theory. *Journal of Studies on Alcohol*, 53: 447-457.
- Kaufman, N. (1990). *Schools Brace for Drug Babies*. The Oregonian, June 4, B1, B5.
- Ketcham K, and Asbury, W. (2000), *Beyond the influence: understanding and defeating alcoholism*. New York: Bantam books.
- Kerachio B. (1994). *Drug Abuse*. Uzima Press, Nairobi.
- Kiess, H., and Bloomquist, D. (1985). *Psychological Research Methods: A Conceptual Approach*. Boston: Allyn and Bacon.
- Kikuvi, R. N. (2009). *Determination of Juvenile Delinquency Development Among Pupils in Machakos Rehabilitation School* Unpublished Master Degree Thesis, Kenyatta University.

- Kithi, N. (2007). *Drug Peddlers Warned of Citizen Arrest.* Nairobi: Nation Media Group.
- Kombo, D., and Tromp, D. (2006). *Proposal and Thesis Writin.: An Introduction.* Paulines Publications Africa, Nairobi, Kenya.
- McCabe SE, Boyd CJ, Teter C.J. (2009) "Subtypes of Non-medical Prescription Drug Misuse. *Drug Alcohol Dependency* 102 (1-3): 63-70.
- MacMillan, J. and Schummacher, S. (1989). *Research in education. A conceptual introduction* (2nd Ed). London: Scott Foresman and Company.
- Mmaduakonam, A. (1998). *Research Methods: An Introduction.* Ontisha: West and Solomon Publishers Ltd.
- Myers B. (2006). *Alcohol and Drug Abuse Research Group*, Medical Research Council of South Africa, Tygerberg, Cape Town 7505, South Africa.
- Mckoy, K. (2007). *Drinking Rampant Among College Students*, Health Day News.
- Mugenda, O., and Mugenda A. (1999). *Research Methods. Quantitative and Qualitative Approaches.* African Centre for technology Studies Press, Nairobi, Kenya.
- Mwenesi, H. (1996). *Rapid assessment of drug use in Kenya.* KEMLI, Nairobi.
- NACADA, (2007). Report Situation Assessment of Drugs and Substance abuse in Nairobi.
- Ndetei, M. (2004). *United Nations Office on drugs and crime: A study on the linkages between drug abuse, injecting drug use and HIV/AIDS in Kenya.* New York: WHO publication.
- Ngesu L.M. Ndiku J and Masese S. (2008) *Drug Dependence and Abuse in Kenya Secondary Schools: Strategies for Intervention.* Educational Research and Review. Vol. 3 (10) pp 304 – 308.

- Ngare, P. (2007). Courts Blamed for School Indiscipline *Daily Nation* pp 9.
- Pauline, C. and Elliot, D. (1997). Alcohol, Tobacco and Cannabis use among Nova Scotia adolescents: Implications for prevention and harm reduction *Canadian Medical Association Journal* (Ottawa) 156 (10): 387 – 1393.
- Purris, G. and Mach Innis, D.M (2009). “Implementation of the Community Reinforcement Approach in a Long Standing Addictions Outpatient Clinic’. *Journal of Behaviour Analysis of Sports, Health, Fitness and Behavioural Medicine*. 2 (1) 33-44.
- Republic of Kenya (2002). *Youth in Peril: Alcohol and Drug Abuse in Kenya: Final National Baseline Survey on Substance Abuse among the Youth in Kenya*, Government Press.
- Republic of Kenya. (2006). National Institute on Drug Abuse and University of Michigan. Monitoring the Future Study Drug Data Tables.
- Republic of Kenya. (2007). Ministry of Education, Education Facts and Figures 2002-2007.
- Shaw, R. (2007). Has Kenya become a Sanctuary for drugs and dirty money? Nairobi. National Media Group.
- United Nations. (1992). *World Drug Report*. New York.
- United Nations. (1993). *World Drug Report*. New York.
- United Nations. (1988). *World Drug Report*. New York.
- United Nations. (2007). Kenya Regional Office: Overview of Regional Demand for Illicit Drugs.
- Weinstein N.D. (1984). Why it won’t happen to me: perceptions of risk factors and susceptibility. *Health Psychology*, 3: 431 – 457.

APPENDIX A: QUESTIONNAIRE FOR STUDENTS

A: Demographic details

1. Please indicate your age

- 1) 10 – 12 years 2) 13 – 15 years 3) 16 – 18 years
 4) 19 – 21 years 5) 21 years and above

2. State your gender

- 1) Male 2) Female

3. Indicate the category of your school

- 1) Boys 2) Girls 3) Mixed

4. Is your school

- 1) Day 2) Boarding

5. Indicate your class

- 1) Form 1 2) Form 2 3) Form 4

6. Indicate the people you live with at home

1	Mother	
2	Father	
3	Grandmother	
4	Grandfather	
5	Sister	
6	Brother	
7	Uncle	
8	Aunt	
9	Any other	

7. If your parents are not living who do you live with

- 1) Neighbour 2) Relative
 3) Any other (specify) _____

Section B Drug and substance abuse among students

1. Which of the following substances have you seen or taken?

		Seen	Taken
1	Alcohol (beer)		
2	Tobacco		
3	Narcotic drugs (Opium morphine, heroin codeine)		
4	Cannabis (charas, bhang, marijuana, hashish)		
5	Hallucinogens)l.S.D.P.C.P, Mescaline, barbiturates)		
6	Inhalants (Aerosol, gasoline, petrol sprays, glue)		
7	Stimulants (cocaine, Miraa)		
8	Caffeine beverages (coffee, tea, cocoa)		
9	Mescaline		

2. Indicate the reasons that make you take any of the above substance (Tick as many as applicable).

	Reason	Tick
1	Peer, pressure	
2	Family background e.g parent also drinks,	
3	Availability of the drugs e.g availability of money to buy	
4	Failure at school	
5	Frustrations and stress at home	
6	Influence by mass media	
7	To keep me awake so as to read more	

3. Do your classmates take drugs?

1) Yes 2) No

4. Do you have special needs friends at school who abuse drugs?

1) Yes 2) No

5. Do they take drugs often?

1) Yes 2) No

6. Do they take drugs occasionally?

1) Yes 2) No

7. Have you had incidences where those who took drugs were involved in bullying activities at school?

1) Yes 2) No

8. Do you use pocket money to buy drugs and substances?

1) Yes 2) No

9. Are there some students who drop academically because of taking drugs?

1) Yes 2) No

10. Do you feel that some drugs may assist you to study better? If yes, which ones?

1) Yes _____ 2) No _____

11. After taking drugs, which of the following health problems have you experienced?

1.	Anxiety, sweating, shaking and vomiting	
2.	Terrified and feeling like committing suicide	
3.	Coughing and chest pains and headaches	
4.	Nervousness and red eyes	
5.	Sleepy and tired	
6.	Confused, lack of co-ordination and loss of appetite	
7.	Any other, specify	

12. Indicate the extent to which you agree or disagree with the following statement?

Key:

SA = Strongly Agree
 A = Agree
 U = Undecided
 D = Disagree
 SD = Strongly Disagree

	Item	SA	A	U	D	SD
1.	I know about drugs from my friends					
2.	Some of my friends take drugs					
3.	I use drugs to cope with stress					
4.	I use drugs because of school/home problems					
5.	I take drugs to belong to my friends					
6.	I take drugs to gain strength					
7.	I take drugs because my parents also take					
8.	Many students are involved on one drug or another					

13. What effects do students who take drugs at school experience?

14. Have you gone for counselling against drug abuse?

1) Yes 2) No

15. If not would you like to be counselled to stop taking drugs

1) Yes 2) No

16. What recommendations could you give to minimise drug abuse in schools?

APPENDIX B: QUESTIONNAIRE FOR TEACHER/COUNSELLOR

Section A: Demographic information

1. Indicate your age

- 1) 20-25 years 2) 26-30 years 3) 31-35 years
 4) 36 –40 years 5) 41-45 years 6) 46-50 years
 7) 51 and above

2. State your gender

- 1) Male 2) Female

3. Tick your highest professional qualification

1. Diploma	
2. Approved teacher	
3. Graduate (B.Ed)	
4. BA/ B Sc with PDGE	
5. Masters degree (M.Ed)	
6. Any other	

4. For how long have you been a guidance and counsellor? _____

5. Are you trained as a drug addiction counsellor?

- 1) Yes 2) No

Section B: Drug and substance abuse among students

1. Do you experience cases of students engaging in drug abuse in your school?

- 1) Yes 2) No

1.b If yes what are the drugs that your students get involved in?

	Drug Type	
1.	Beer	
2.	Tobacco	
3.	Marijuana/hashish	
4.	Cocaine	
5.	Crack	
6.	Heroin	
7.	Hallucinogens	
8.	LSD	
9.	PCP	
10.	Ecstasy	
11.	Inhalants	
12.	Methamphetamine	
13.	Nonmedical use of psychotherapeutic	
14.	Illicit drugs other than marijuana	
15.	Other (specify)	

2. If your students take drugs, what do you think the reasons are?

3. What are the effects of drugs on students?

4. Do you keep records of those students engaged in drug abuse?

- 1) Yes 2) No

5. What is the approximate number of students engaged in drug abuse in your school?

- Most 1) 2) Average 3) Few 4) None

6. Whenever a student is found taking drugs, what steps do you take?

- 1) Suspension 2) Guidance and Counselling while in school
 3) Refer for counselling elsewhere 4) Ignore the students altogether
 5) Other (specify) _____

7. Do you invite specialists to talk to students on the dangers of drug abuse?

- 1) Yes 2) No

8. Which of the following abused drugs are common among students?

	Drugs Abused	
1.	Alcohol (beer)	
2.	Tobacco	
3.	Narcotic drugs (Opium, morphine, heroin, codeine)	
4.	Cannabis (caras, bhang, marijuana, hashish)	
5.	Halluginogens (L.S.D, P.C.P, Mescaline)	
6.	Inhalants (aerosols, gasoline, petrol, sprays, glue paints)	
7.	Stimulants (cocaine, miraa)	
8.	Caffeine beverages (coffee, tea, cocoa)	

9. Is there any drug assessment procedures in the school?

- 1) Yes 2) No

10. What are some of the problems that you experience as a result of students' involvement in drug and substance abuse?

11. Would you prefer development of a substance abuse intervention program in Nairobi?

- 1) Yes 2) No