

The Effects of Substance Abuse on Learner's Performance in Mathematics

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Abstract. This study investigated the effects of substance abuse on pupil's performance in mathematics at Musa Secondary school in Kasama district of Northern province. The objectives of the study were to establish the reasons for substance abuse by pupils; to determine the effects of substance abuse on the performance of pupils in mathematics; and to identify the commonly abused substances by pupils. The study used both qualitative and quantitative methods. The sample size comprised of 85 respondents selected, 15 subject teachers who were selected through purposive sampling procedures and 70 pupils were selected using random sampling procedure. The research findings revealed that there were many reasons why pupils abused substances which is peer pressure; the need of feeling on top like adults and getting excited; the need for relaxation; the lack of parental care and arising from low self-esteem. The study further revealed that substance abuse had negatively affected the pupil's performances in mathematics. Among other effects of substance abuse includes changes in the homework quality, in discipline as well as the overall school grades and increased levels of school absenteeism. The study also revealed that there is a strong relationship between pupil's school attendance and academic performance. The study also established that alcohol was rated the top most commonly abused substance by pupils, followed by marijuana then petro/glue and cocaine rated least. Furthermore, recommendations which could help to reduce the abuse of drugs in schools were suggested as; establishing strong anti-drugs club and counseling services in schools through school guidance and counseling services, the Ministry of Education, Drug Enforcement Commission and other lined NGOs should partner together so as to provide a comprehensive awareness campaign program in schools on the dangers of substance abuse and parents should also play a critical role in encouraging learners in school by providing all the required support that their children may need.

keywords: Drugs, drug abuse, drug addiction, drug related problems and psychoactive substances school.

I. Introduction

Substance abuse is a social problem that has spread and increased rapidly in our educational institutions especially among our secondary school students. In Zambia, this social Maladaptation is considered an issue of serious concern as it adversely affects the lives of and performance of students involved as well as the harmonious functioning of

the entire structure of the society. Drug abuse and other associated problems are dangerous to the survival and effective functioning of human societies. A significant number of premature deaths and accidents have been ascribed to the activities of persons under the influence of one drug or the other.

Fayombo (1998) defined substance abuse as the use of mood modifying substances illegally, excessively and in a socially unacceptable manner. The drugs range from those that should not even be taken without medical prescription such as cocaine, amphetamine, heroin, marijuana, to the socially acceptable beverages such as whisky, local beers and other alcoholic drinks. Odejide (1997) viewed substance abuse as the improper use or application of drugs by a person without proper knowledge of the drug and without due prescription from a qualified medical practitioner. This definition focuses on psychoactive drugs; all drugs can be abused to an extent that it turns into addiction when the drug user is unable to stop the use of drugs despite the harmful effects on the user's social, personal and economic lives.

The problem of substance abuse is so grave that though it was originally conceived as the problem of a selected few', it has extended beyond the usual characteristics of abusers being male adult's and urban based people to now include female, youngsters and rural dwellers. These abusers erroneously believe that drugs enhance their performance, put them in good mood, the accompany problem of this act constitute a major threat to the well-being of society (Ajala, 2009).

The youth in Zambia like many countries of the world are developing addiction to psychoactive substances. The drug Enforcement Commission (DEC) statistics from schools, records of patients admitted at mental health institutions for drug problems and interview of persons arrested for drug offences indicates that there has been an increase in drug use and abuse. In Zambia, alcohol and cigarette are legal substances but the two have been discovered to cause physical damage of human bodies. These substances have also said to be "gateway drugs" to other more potent drugs like heroin and cocaine (UNDCP, 1988). This compelled the researcher to carry the research of this nature specifically to assess the effects of substance abuse on pupil's performance in Mathematics at Musa Secondary

Statement of The Problem

Substance abuse is a social Problem that has spread and increased rapidly in our educational institutions especially among our secondary school students. In Zambia, this social problem is considered an issue of serious concern as it adversely affects the lives and performance of students involved as well as the harmonious functioning of the entire structure of the society. Furthermore, if this problem is not dealt with to fullest student many drop out of school and others may opt to engage into criminal activities thus endangering the lives of their peer and of the community of which they belong. Hence, the need to conduct an investigation into the effects of substance abuse on the performance of pupils in mathematics in secondary schools.

The Purpose Of The Study

The purpose of the study was to investigate the effects of substance abuse on pupil's performance in Mathematics at Musa Secondary school.

Specific Objectives

- i. To identify reasons of abuse of drugs among pupils.
- ii. Identify commonly abused substances and drugs by pupils.
- iii. To determine the effects of substance, abuse on the performance of pupils.

Research Questions

- i. Why do pupils abuse drugs?
- ii. What is your perception about substances and drug abuse?
- iii. How does substance abuse affects pupils' performance?

II. Literature Review

This study used the theories of Plato and Socrates work, John Locke and Paul Freire as theoretical frame work.

The effects of substance abuse are not limited to a particular part of the world or an age group. Substance abuse is "the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs" (WHO). Although substance abuse is equally represented the developing world, marginalized groups and communities are the most vulnerable to this reality.

Drug use by students has hampered education and management in Zambian secondary schools. In Zambia, recent statistics suggest that one in every three secondary school students consumes alcohol. Another 8.3% smoke cigarettes while almost one in every

ten 9.1% chew Miraa. About 3% smoke marijuana and use hard drugs like heroin, cocaine, mandrax and tranquilizers (the Zambia daily mail newspaper, 2008). Drugs have varied physiological effects. Some adverse consequences include insomnia, prolonged loss of appetite, increased body temperature, greater risk of hepatitis and HIV/AIDS infection (Parkinson, 2002), death, various forms of cancers, ulcers and brain damage. There has been a universal boost in the consumption of recreational prescribed and illicit psychoactive substances. This increase has caused behavioral, psychological and physical problems. In many countries and cultures, it has reached epidemic levels. It is agreed that drugs are presently among the most acute global concern. Much of the concern pertaining to drug abuse focuses on the experimentation and initiation of various drugs by children and youngsters. Beverages and experiment with drugs. Significantly, children and teenagers do not understand the long-term consequences of tobacco, alcohol and drugs, although continued consumption has been shown to have major harmful effects on their health.

Children tend to explore themselves voluntarily to curiosity-evoking situations. When his/her arousal is low, the child seeks curiosity-inducing situations and when arousal is high, she/he tends to regulate evoking situations in order to lessen curiosity. Once curiosity is evoked, the child will experience a strong drive to satisfy curiosity and may therefore experiment with drugs. Curiosity results from feelings of deprivation, which are unpleasant and motivates information seeking in order to be reduced. Induction of motivation by curiosity is also related to drugs, as demonstrated in studies conducted on children in elementary school children respond positively to new, strange, strange or mysterious elements in their surrounding by moving towards these elements exploring or manipulating them.

The most commonly used drugs among the young people are marijuana (dagga), alcohol, Amphetamine-type stimulants (ATS), volatile stimulants and sniffing (glue/petro). A number of studies revealed that youths, especially students constituted the high-risk group, in the use and abuse of drugs and substances. Moreover, stimulants such as cocaine, heroin, alcohol, marijuana, cigarettes are the most common drugs abused by them. According to the National Institute on drug abuse (2000), alcohol is the most abused psychoactive drug in the United States with approximately 90% of students using it before they leave high school. In Zambia a report by DEC (2008) found that

alcohol is also the most commonly abused drug with about 61% of the population engaging in its use. The same report indicated that 40.9% of students were abusing alcohol.

Marijuana is a product of hemp plant *Cannabis sativa* that grows abundantly worldwide.

III. Methodology

Research Design

The study used a case study research design which had both qualitative methods to obtain data and quantitative methods to analyze data. The design was used because it studied critically the effects of substance abuse on the performance of learners in mathematics.

Location of The Study

This study was conducted at Musa Secondary school, with the aim of trying to find out the effects of substance abuse on learner's performance in mathematics.

Target Population

The target population for this study was 450. This number comprised of 30 teachers and 420 pupils.

SAMPLE SIZE

The sample comprised of 85 respondents, namely fifteen (15) subject teachers and seventy (70) pupils from form 1 to grade 12.

Sampling Procedure

Purposive sampling procedure was used to select the subject teachers, while a simple random sampling was used to select pupils. The reason for using the simple random sampling procedure is to accord each respondent an equal chance to be chosen for the study.

Data Collection Procedure

Both primary and secondary data was collected

- The researcher used questionnaires to collect primary data.
- Secondary data was collected from books, reports, journal, magazines, newspapers, brochures and articles relevant to the study.

Data Analysis

The findings were expressed quantitatively using charts and tables and data was also collected qualitatively in order to give some detailed descriptions of the findings.

Research Instruments

Open- ended questionnaires were used to collect data from the pupils. Questionnaires were made up of open- ended questions to allow the respondents put forward their perceptions and express themselves thoroughly. Teachers and pupils selected were given questionnaires.

Ethical Consideration

The ethical consideration was upheld during this study by the researcher, he/she would explain in simple terms the nature of the research and how its finding will be used. Furthermore, the researcher also treated all the information received from the respondent as confidential as possible. This research was considered an attitude of empathy and will uphold the dignity of all the respondents, as well as treat the respondents as subjects of the research and not as objects.

IV. Results and Discussion**Demographic characteristics**

The study used both qualitative and quantitative methods. The sample size comprised of 85 respondents selected, 15 subject teachers were selected through purposive sampling procedures and 70 pupils were selected using random sampling procedure; of the 85 respondents, 15 subject teachers represented the percentage of 18% and 70 pupils represented the percentage of 82%.

Reasons for use of substance abuse by pupils.

The research findings revealed that there were many reasons why pupils abused substances which is peer pressure; the need of feeling on top like adults and getting excited; the need for relaxation; the lack of parental care and arising from low self- esteem.

Teacher's views on the substance abuse by pupils.

Teachers had also their own views as to why learner's engage in substance abuse. The suggested reasons include; the lack of parental care as a result of coming from child headed homes or households where young people from such households assume parental roles.

In addition, teachers also raised the point of low self-esteem among the pupils as being part of the reason why pupils resorted to substance abuse, in this case the substance abused were meant to raise their low self-esteem to enable them face up the reality of their day to day living.

Effects of substance abuse among learners in mathematics

The study established that substance abuse negatively affects pupil's performance in Mathematics due to their effects on life of the abuser, as pupils are engaged in substance abuse end up performing poorly and some even drop out of school in the process due to the loss of interest in the educational activities.

The study also revealed that they are a strong relationship between pupil's school attendance and the academic performance. This is so because the pupils who are fond of absconding are ever behind on their school work and tend to miss important lessons that their classmates learn in their absence.

of the commonly abused substances by pupils, alcohol holds a higher score of 56%, followed by Marijuana at 32% and other drugs at 8% as well as Heroin at 0%.

Measures to control the abuse of drugs among learners

The study provided some control measures of drug and substance abuse such as providing learners with counselling services from both the school and communities at large. The church and other non-governmental organizations should partner in the sensitization of young people of the dangers of drug abuse. Creation of anti-drugs clubs in school will help control the situation of abusing drugs among school going children as well as summoning parents whose learners are abusing drugs.

V. Conclusion

The study was all about an investigation into the effects of substance abuse on pupil performance in secondary schools particularly Musa Secondary school. The study aimed at determining the reason for substance abuse by the pupils; to also determine the effects of substance abuse on the learner performance in mathematics; and to identify the commonly abused substances by pupils. The study however established that there were many reasons why pupils engaged in substance abuse that ranged from peer pressure; out of the need of feeling on top like adults and getting excited; need for

relaxation and sedation; the lack of parental care because of coming from child headed households; and arising from low self-esteem among pupils.

Recommendation

The research has the following recommendations;

1. The ministry of education should introduce strong anti-drugs clubs and counseling services in schools through guidance and counseling services to have a lasting solution to the problems of substance abuse.
2. The ministry of education, the drug enforcement commission and other lined NGOs should collaborate and provide a comprehensive awareness campaign program on the dangers of substance abuse in secondary schools.
3. The ministry of education should also collaborate with other stakeholders like the local authority to ensure provision of recreation facilities in not only schools but also communities to keep young people busy.
4. The local authority and the police should enforce the law that prohibit individuals under the age of 18years to enter into bars and night clubs, as well as step up in monitoring of mushrooms taverns and bars to ensure compliance to the provisions of the

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