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**FACTORS INFLUENCING DRUGS AND SUBSTANCE ABUSE AMONG PUBLIC
SECONDARY SCHOOL STUDENTS IN KIAMBU COUNTY, KENYA**

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FACTORS INFLUENCING DRUGS AND SUBSTANCE ABUSE AMONG PUBLIC SECONDARY SCHOOL STUDENTS IN KIAMBU COUNTY, KENYA

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Abstract

Purpose: The main objective of this research was to assess the factors influencing drugs and substance abuse among public secondary school students in Kiambu County Kenya.

Methodology: Mixed methodology was used to gather both qualitative and quantitative data. A descriptive survey study design was used to assess the factors influencing public secondary school students. The target population comprised of form three students and teachers from public secondary schools. The sample size was 140 respondents. Simple random sampling and purposive sampling techniques were used in respondent selection. The study instrument was structured questionnaires. After data collection, quantitative data was cleaned, coding and then entered into SPSS software version 21.0. Quantitative data was analyzed and presented in the form of frequencies and percentages, in Tables and Figures using SPSS software. Further, inferential statistics was used to test for relationship at 95% confidence level. All logical and ethical issues pertaining to research were also adhered to by the researcher throughout the process of writing this study.

Results: The results of the study revealed that drugs and substance abuse was generally prevalent among public secondary school students in Kiambu County. However, the male learners in this study were found to be mostly affected by drugs and substance abuse compared to the female students in similar schools. The study also established that peer pressure influenced drugs and substance abuse among public secondary school students to a high extent. According to the results, alcohol consumption by students is most influenced by peer pressure followed by cigarette smoking, bhang smoking, Khat chewing and cocaine consumption in Kiambu County. Lastly, the study also established that being in a mixed school greatly influenced drugs and substance abuse among public secondary school learners, followed by belonging to a single gender school whereas being in a boarding school influenced drugs and substance abuse among public secondary school learners the least.

Unique Contribution to Theory, Practice and Policy: The study recommends that urgent attention need to be given to mixed secondary schools as drugs and substance abuse is very prevalent in these schools. All education stakeholders in Kiambu County ought to work together in order to eliminate drug and substance abuse among the students as this is an endeavor that cannot be achieved by a single party alone.

Keywords: *Drugs, substance abuse, public secondary school students, Kiambu County, Kenya.*

1.1 INTRODUCTION

Substance abuse by people in all parts of the world, particularly adolescents, has long been of scientific, political and public concern (Stevanovic, Atilola & Balhara, 2015). This concern is due to the potential short- and long-term adverse effects associated with the use of substances such as cigarettes, drugs, cannabis (dagga) etc., on individual well-being (Moodley, Matjila & Moosa, 2012). Various studies have revealed that substance use amongst adolescents may lead to poorer health and negative social consequences. For instance, substance abuse is associated with unintentional injuries, cancer, homicides and suicides, depression, personality disorder, unplanned sexual activity and increased sexually transmitted diseases. Moreover, substance abuse has also been documented to contribute to the high rate of school dropout, unemployment, high level of crime as well as poverty, which in turn affects the economy of a country (Rezahosseini, Roohbakhsh, Tavakolian, & Assar 2014; Griffin, Lowe, Acevedo, & Botvin, 2015). According to the United Nations, globally, cannabis (dagga) is a widely consumed illicit drug. Although it is not the primary drug of abuse in most nations such as Europe, America, Australia or Asia, it has been found to be the primary drug of abuse in Africa, especially amongst young people (United Nations World Drug report, 2011).

In Iran, Alcohol, opium, and cannabis are the most frequently used illicit drugs, but there are new emerging problems with anabolic steroids, ecstasy, and stimulant substances, such as crystal methamphetamine (Momtazi & Rawson, 2010). According to Momtazi and Rawson (2010), there is serious drug abuse problem among Iranian high school students. It could be due to role modeling by parents mainly fathers and also cultural tolerance of some substances. Early onset of tobacco smoking, with a daily use rate between 4.4% and 12.8% in high school students, is an important risk factor for other drug abuse problems. Use of all types of drugs, except prescription drugs, is more prevalent among boys. Alcohol is the most frequently abused substance, with a lifetime rate of at least 9.9%. Lifetime rates of opiate use mostly opium were between 1.2 and 8.6% in different parts of the country (Momtazi & Rawson, 2010).

In Canada, a study conducted in 2008 and 2009 amongst grade 10 to 12 learners indicated that 2.3% of these pupils had used heroin and 1.4% had used it once in the past month, whereas it is documented that, in South Africa, the use of heroin amongst age 13 to 22 years was 6.2%. The World Health Organization (2011) conducted a survey in Zambia amongst grade 7 to 10 learners. Findings showed that cannabis abuse was 35.5% amongst the learners. Meanwhile, from a survey conducted in South Africa in 2008 amongst young people of age 13 to 22 years, the rate of cannabis abuse was 12.7%, whilst in the USA cannabis usage by grade 10 pupils in 2010 was 33.4% (United Nations World Drug report 2011). In a study by Onya and Flisher, (2008) amongst rural high school students in Mankweng, Limpopo Province, South Africa, the researchers documented that the prevalence rates for previous month (recent) use of alcohol, cigarettes, cannabis, glue and spirits were 6.4%, 10.5%, 1.4%, 1.2% and 0.8% respectively. It was further stated that, for all substances, males had higher prevalence rates than females; this is also supported by a study carried out in Nigeria by Oshodi, Aina, and Onajole (2010). Onya and Flisher (2008) attested that there was a lower prevalence rate of substance use amongst black Pedi high school students compared to other studies.

A study by Tshitangano and Tosin (2016) among South African secondary school students revealed that majority of (94% male, 98% female) had never used substances. Most of

learners started using substances between the ages 15 to 20 years. The majority of learners who were using substances were male. The majority (63% male, 50% female) of the learners tried to stop substance abuse but failed. The majority of the students attested that substances can be easily obtained in their communities or villages. In Nzau District Matitiku Division, Makueni County, Muthoka (2015) revealed that more than half of the studied students abused drugs and 60% of the drug abusers were male while 40% were female students. The study also established that alcohol, tobacco and bhang were the most abused drugs and substances by the learners. On the other hand, peer pressure, socialization and easy availability of drugs were shown to influence drug abuse tendency among secondary school learners in Makueni County. With regard to cannabis (dagga) abuse, a study conducted in Kenya in 2007 revealed that 1.1% of adolescents of age 15 to 17 years had used cannabis. In Kiambu County, drugs and substance abuse is a problem facing most public secondary schools. The number of available drugs and substances that could be abused by the students is numerous in the community and school surrounding making the problem dire for public secondary schools. This created the need for the current study to assess the factors influencing drugs and substance abuse among public secondary school students in Kiambu County Kenya.

1.2 Statement of the Problem

Drugs and substance abuse is a very serious problem among adolescents around the world. The most alarming issue is the rise of drugs and substance abuse among school going children. This is despite the fact that academic institutions are expected to instill good morals on the learners as well as appropriate discipline to enable learners to avoid temptation to use and abuse drugs and substances. In Kiambu County, cases of truancy and delinquent behaviours among learners including diminished academic achievement is a common issue. These point to the possibility of drugs and substance abuse among learners as this factor has been shown to influence such behaviours by scholars around the world. Reports of actual drugs and substance abuse among public secondary school students in Kiambu County are also available (County Education Officer Report 2017). Given the effects of drugs and substance abuse among learners, the current study sought to investigate the factors influencing drugs and substance abuse among public secondary school learners in Kiambu County as very little has been done to date to address this problem effectively.

1.3 Objectives of the Study

1. To assess the prevalence of drugs and substance abuse among public secondary school students in Kiambu County Kenya
2. To identify the influence of peer pressure on drugs and substance abuse among public secondary school students in Kiambu County Kenya
3. To investigate the influence of school type on drugs and substance abuse among public secondary school students in Kiambu County Kenya

1.4 Study Hypothesis

H₀₁: There is no relationship between peer pressure and drugs and substance abuse among public secondary school students in Kiambu County Kenya

H₀₂: There is no significant relationship between school type and drugs and substance abuse among public secondary school students in Kiambu County Kenya

2.0 LITERATURE REVIEW

2.1 Theoretical Literature

2.1.1 Social Cognitive Theory

The theory supporting the present study was the social cognitive theory by Bandura (1977). 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 modeling, instruction, and social persuasion. In the context of the current study, the social cognitive theory shows that substance abuse among students could be influenced by the peer pressure they experience as they interact in the school environment. 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. In support of the present study, the aspect of interaction indicates that students choose to engage in activities that are risky based on their surrounding environment such as school type. For these reasons, the study saw fit to use this theory to guide the present study as it supports the notion that students' behaviours are influenced by environmental factors just like the current study reveals.

2.2 Empirical Literature Review

2.2.1 Prevalence of Drugs and Substance Abuse among Public Secondary School Students In 2006, Ziaaddini, Zarezadeh, and Heshmati (2006) published a study on drug abuse among high school students in Kerman, a city in Southeast Iran. This city is near the eastern border with Pakistan and Afghanistan and has a traditionally high rate of drug abuse. In this study, the rate for lifetime use of drugs in 3318 high school students was 26.5 % among boys and 11.5% among girls (Ziaaddini, et al., 2006). Findings of this study have shown that the usual place of drug use is friends' home for 42.3% of boys and 70.4% of girls. Also 26.5% of the boys and 16.8% of the girls were using drugs during their attendance in school. In another study, conducted in 2009 in Zanjan, a city in the northwest of the country, lifetime prevalence of drug abuse in high school students was 11.2% (Montazi, Nouhravesh & Taremian 2009). The rate was significantly higher among boys than girls (18.9% versus 7.7%). Ahamdi and Hasani (2003) in Shiraz a large city located in the southern part of the country found rates of lifetime use and current use of drugs to be significantly higher among boys than among girls. In a study in Tabriz another city in the northeast among 1785 male high school students, 12.7% had a lifetime history of alcohol use and 2.0% for other substances (Mohammadpoorasl, Vahidi & Fakhari, 2007).

In Iran, alcohol is considered an illicit drug and its use is banned for all age groups. Unfortunately this situation does not prevent its use among adolescents, and, in fact, alcohol is the most common illicit substance among Iranian high school students, especially among boys (Momtazi, et al., 2009). Two studies in Kerman have shown lifetime prevalence for alcohol between 11.4% and 18.2% among male high school students and between 5.1% and 8.9% among females. In RSA 2007, in a cross-country study, the mean age of first alcohol use was 17.8 years. In a study among high-risk grade 11 students in Tehran, 45.7% had lifetime experience of alcohol drinking (Tareminian, 2005). The rate of alcohol use was similar to the rate for tobacco smoking and much more than the rate for any other substance. In the Zanjan study, the lifetime history of alcohol use was 9.9% (Momtazi, et al., 2009). The rate was significantly lower in girls (3.7 %) than in boys (16.3%). In this study, 16 boys out of 264 (6.1%) and none of the girls were current alcohol users.

Although alcohol consumption is illegal in Iran (it is banned by Islam and unlike many other countries there is no alcohol advertising to promote use by youth, it is customary to have alcohol at various parties and ceremonies (Smith & Foxcroft 2009). In the Kerman study, 49.5% of boys and 25.4% of girls who ever used alcohol had used it at wedding ceremonies. It seems that there is a tolerant atmosphere in these situations even for adolescents regarding alcohol use. In the Kerman study, among those students with lifetime experience of alcohol use, 25.6% of boys and 19.4% of girls were using it daily (Ziaaddini, Zarezadeh & Heshmati, 2006). Whereas there is no comparative study between Muslims and other religious groups in Iran, some studies in Iran have shown that there is more tolerance for alcohol consumption among Christians than among Muslims (Farhoodian, Sadrosadat & Mohamadi, 2008).

Iran has a long border with Afghanistan, the biggest producer of opium in the world, and opium use has a centuries-old tradition in Iran. Although there is negative stigma for heroin use, there is a traditional supporting culture for opium. In a household survey of 3840 people aged 15 and over, 17.9% admitted using opium at least once during their lives (Ziaaddini & Ziaaddini 2005). The problem for Iranian adolescents is exposure to role models of drug abuse; such models are more likely to be an adult family member than an adolescent peer, a reversal of what is usually found in western countries. They also found that in a sample of 14–18-year-old youth, 11% had used drugs, mostly opium (Momtazi, et al., 2009). Lifetime prevalence of opium and heroin use was 1.9% and 0.2%, respectively, in the Zanjan study. Ahmadi et al. (2003) reported that 2.3% and 0.8% of students were current users of opium and heroin in the Shiraz study. In Kerman study, one fourth to one third of high school students who had lifetime experience of opiate use opium or heroin were daily users of it (Ziaaddini, et al., 2006). In all studies, the rate of heroin use was far lower than the rate of opium use.

According to the African Union Ministerial Conference on Drug Control in Africa report (2004), at least 16 countries in Africa have reported abuse of opiates, with prevalence rates ranging from 0.01 to 0.8 percent for the population aged 15 and above. Twelve countries reported cocaine abuse with prevalence ranging from 0.01 to 1.1 percent for this age bracket. Concurrently, the age of those initiated to drug use is diminishing with large numbers of in-school and out-of-school youth consuming drugs. This phenomenon is even more acute in conflict and post conflict countries, with populations experiencing high stress levels while child soldiers are provided with drugs to enable them to fight. Within Kenya itself, drug abuse is becoming an increasing problem (Masita, 2004),

almost every Kenyan youngster at one time or another experiment with drugs, especially with beer and cigarettes. Although the regular users of hardcore drugs are much fewer than those of cigarette and alcohol, the study argues that the major cause of concern is that a high proportion of these young people eventually become addicted threatening their own health and safety, and causing difficulties for their families and friends. A study by Abur (2014) revealed that the commonly abused drug in schools included marijuana, tobacco, Miraa, Khuber, Glue, Cocaine and Heroin. A study carried out by Ngesu, Ndiku and Masese (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 built on these study findings by carrying out a similar study among public secondary students in Kiambu County as in the reviewed studies, the sample sizes were small enough to be generalized to learners in the studied regions and not every student around the world.

2.2.2 Peer Pressure and Drugs and Substance Abuse among Secondary School Students

Many scientists have come up with several explanations as to why individuals first become involved with drugs and then move on to abuse (Van-Atta & Newmark, 2005). One of these explanations is that starting to abuse a drug may lead to affiliation with more drug abusing peers which, in turn, exposes the individual to other drugs. Association with drug-abusing peers is often the most immediate risk for exposing adolescents to drug abuse and delinquent behavior (Dishion, Kavanagh, Welson & Kaufman, 2002). Substance use and abuse is particularly problematic during adolescent development. For this age, substance use is often a function of the negative pro-drug social influences and exposure, together with individual development and vulnerabilities (Mayberry, Espelage, & Koenig, 2009).

Studies on early risk behaviors” in school setting show that aggressive behavior in boys and learning difficulties in girls are the primary causes of poor peer relationships (Elizabeth, Susan & Suman, 2003). If these behaviors continue, they will likely lead to other risks like early peer rejection and later affiliation with deviant peers which are often the most immediate risks for drug abuse in adolescence (Elizabeth, et al., 2003). Another survey of youth in Southern Nigeria, found out that the source of drugs for drug using-students was friends in the same or neighbouring schools, and students who reported using drugs had more drug using than abstinent friends (Imbosa, 2002). In South Africa, Tshitangano and Tosin (2016) established that the majority of the male (54%, n=82) and female (72%, n=129) learners said they did not have friends or colleagues who used substances, and some of the male (25%, n=35) and female learners (7%, n=13) confirmed having friends or colleagues who were substance users.

In a Kenyan study in Starehe Sub-County by Ongwae (2016) revealed that teachers reported peer pressure (38%) as the main cause of drug and substance abuse (DSA) among students. Confirming this findings Kiiru (2004) argues that peer pressure influences youth to use substances under the false impression that some drugs stimulates appetite for food, increase strength and give wisdom as well as courage to face life. Ngesu et al. (2014) also looked at drug abuse among secondary school students in Kisumu Municipality and revealed that peer group pressure was a major factor influencing drugs and substance abuse among the students. Most of the reviewed studies failed to look at specific peer related aspects that influence DSA among learners; they also failed to look at

the gender most susceptible to DSA due to peer pressure areas addressed by the present study among public secondary school students in Kiambu County Kenya.

2.2.3 School Type and Drugs and Substance Abuse among Secondary School Students

Previous studies have shown that the key risk periods for drug abuse occur during major transitions in children's lives (Goldberg, MacKinnon, Elliot, Moe, Clarke & Cheong, 2000). The first big transition for children is when they leave the security of the family and enter schools (August, Hektner, Egan, Realmuto and Bloomquist, 2002; August, Lee, Bloomquist, Realmuto & Hektner, 2004). As they progress to middle or junior high school, they often experience new academic and social situations, such as learning to get along with a wider group of peers and having greater expectations for academic performance (Sussman, Dent & Stacy, 2002).

It is at the stage of 'early adolescence' that children are likely to encounter drug abuse for the first time (Eggert, Thompson, Herting & Randall, 2001). A particularly challenging situation in late adolescence is moving away from home for the first time without parental supervision, perhaps to attend high school. In high school, students face additional social, psychological, and educational challenges. At the same time, they may be exposed to greater availability of drugs, drug abusers, and social engagements involving drugs (Sussman, Dent & Stacy, 2002). These challenges are likely to increase the drug abuse risk factors and they can take alcohol, cigarettes and bhang (Sussman et al., 2002).

Other drug abuse risk factors relate to children's relationships in school settings outside the family with their peers and teachers (Dishion, Kavanagh, Schneider, Nelson & Kaufman, 2002). Some of these risk factors are: inappropriate classroom behaviour, such as aggression and impulsivity; academic failure and poor social coping skills which may lead to the problem of drug abuse (Dishion & Kavanagh, 2000; Dishion, et al., 2002). A study by Tshitangano and Tosin (2016) among south African secondary school students revealed that of the total respondents, some of the learners, both male (48%, $n = 66$) and female (47%, $n = 85$), said substances were not used in their schools, whilst some male (43%, $n = 65$) and female (29%, $n = 53$) learners said that substances were used in their schools.

In her study, King'endo (2014) established that school types contributed to students' drug abuse in Nairobi County. 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. According to Kingala (2000) in Kenya majority of the students start taking drugs at school. Kingala (2000) notes that how the school administration manages student affairs may lead to drug use. High handedness, harsh treatment, lack of freedom and students' failure to have their grievances addressed creates stress which can lead to abuse of drugs (Kingala, 2000). Even though the reviewed studies reveal that school related variables influence DSA among students, only King'endo (2014) linked school type to DSA while other studies totally ignored this important variable. To support King'endo (2014), the current study focused on the influence of school type on drugs and substance abuse among secondary school students in Kiambu County Kenya.

3.0 RESEARCH METHODOLOGY

The study adopted a mixed methodology to gather both qualitative and quantitative data. A descriptive survey study design was used to carry out this study as it allowed the researcher to collect original data without any manipulation. Descriptive survey study design therefore helped in obtaining information concerning factors influencing drugs and substance abuse among public secondary school students of Kiambu County Kenya. The target population for the study was the public secondary school students in Kiambu County Kenya. The sample included 115 form three students and 25 teachers. Questionnaires were the main instruments for data collection. Simple random and purposive sampling techniques were used to select respondents. Collected data was sorted, coded and input into the statistical package for social sciences (SPSS) version 21.0 for production of Figures and Tables to generate descriptive and inferential statistics. All logical and ethical issues were adhered to during the process of writing this paper.

4.0 RESULTS

4.1 Response Rate

The number of questionnaires that were administered was 140 and a total of 130 questionnaires were properly filled and returned where as 10 of the respondents returned the questionnaires half-filled while others refused to return them completely despite a lot of follow up. The response rate result is shown in Table 1.

Table 1: Response Rate Response

	Frequency	Percent
Returned	130	93.0%
Unreturned	10	7.0%
Total	140	100%

The questionnaire response rate was 93.0% as shown in Table 1 above. This was a success based on a study by Kothari (2004) who noted that return rate of over 50% is good enough for a descriptive research. Hence the collected data is enough to generalize to the entire target group.

4.2. Distribution of Participants by Demographic Characteristics

4.2.1 Gender of the respondents

The respondents were asked to indicate their gender. Table 2 shows the results.

Table 2: Gender of the respondents

	Frequency	Percent
Male 72 55.4 Female 58 44.6		
Total	130	100.0

Findings in Table 2 show that 55.4% of respondents who took part in this study were males while 44.6% were females. This implies that most respondents in public secondary schools in Kiambu County Kenya by the time of study were males. This was supported by studies in other fields which

showed that in spite of women being major actors in Kenya's economy, and notably in agriculture and the informal business sector, men dominate in the formal sector citing the ratio of men to women in formal sector as 74%:26% (Ellis, Cutura, Dione, Gillson, Manuel & Thongori 2007).

4.2.2 Working Experience

The respondents were asked to indicate the duration they have worked in their current jobs. Results are presented in Figure 1.

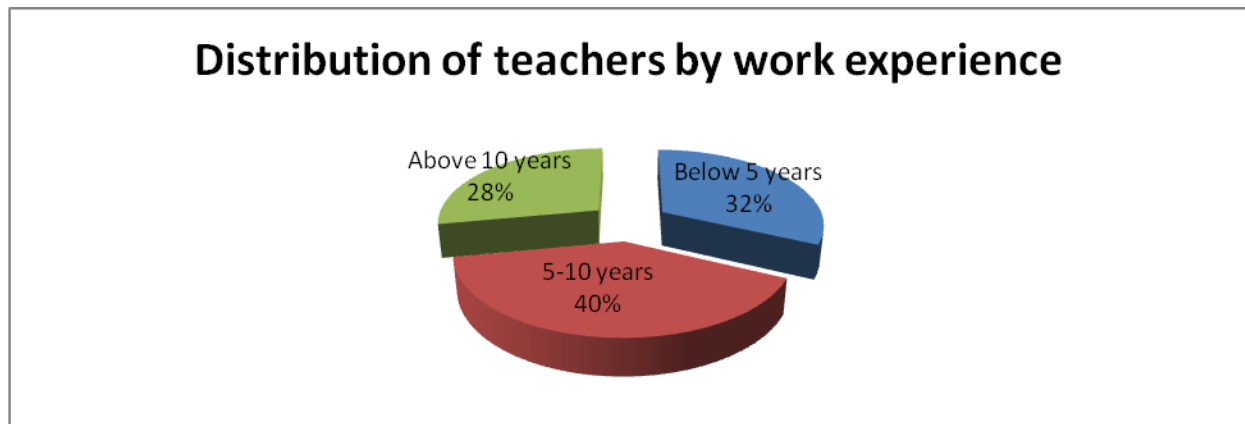


Figure 1: Distribution of teachers by work experience

Results presented in Figure 1 reveals that 40% of the respondents had taught for a period of 5 to 10 years, 32% had taught for less than 5 years and 28% had taught for more than 10 years in Kiambu County Kenya. This implies that most teachers had not worked for a long period. It is assumed that the longer one worked in an organization, the more they understand the organization and hence the higher the ability to articulate issues pertaining to the organization (Afande, 2013)

4.2.4 Distribution of Respondents' by Category

The respondents were asked to indicate their categories. Figure 2 shows the results.

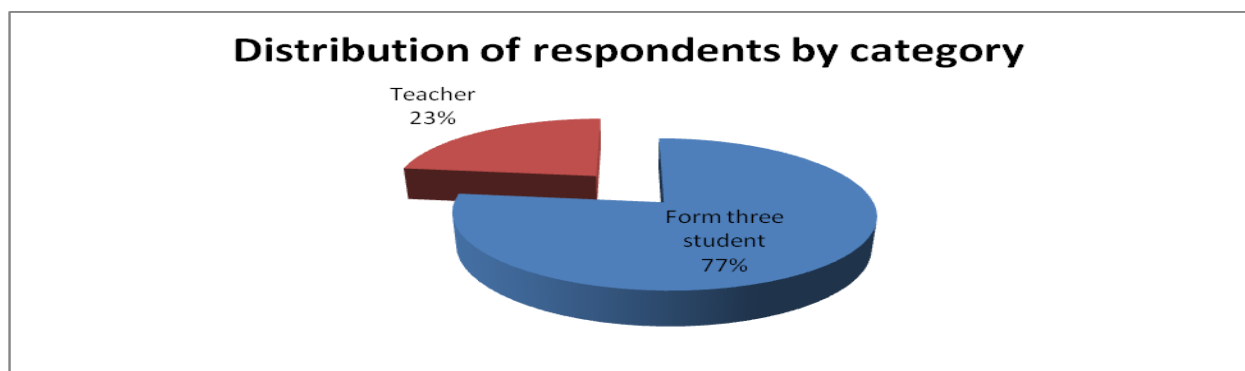


Figure 2: Distribution of respondents by category

The study also sought to establish the categories of the study participants and results presented in Figure 2 reveals that most participants 77% were form three learners while 23% were teachers. Therefore, results presented in this chapter mostly express the views of students than teachers as the study is concerned with drugs and substance abuse among the students lending more weight on the gathered data.

4.3 Prevalence of Drugs and Substance Abuse among Public Secondary School Students The first objective of the study was to assess the prevalence of drugs and substance abuse among public secondary school students in Kiambu County Kenya.

4.3.1 Descriptive Statistics

4.3.1.1 Prevalence of Drugs and Substance Abuse among Students

The study gathered data from participants on the prevalence of drugs and substance abuse among public secondary school students and findings presented in Table 3.

Table 3: Prevalence of Drugs and Substance Abuse among Students

	Frequency	Percent
Very prevalent	62 47.7	Prevalent 44 33.8
Moderately prevalent	24	18.5
Total	130	100.0

Results in Table 3 reveal that drugs and substance abuse was very prevalent among public secondary school students as mentioned by 47.7% of respondents, 33.8% mentioned that it was prevalent while 18.5% mentioned that it was moderately prevalent. This implies that in Kiambu County public secondary schools, drugs and substance abuse among students is generally prevalent. In 2006, Ziaaddini, et al. (2006) studied drug abuse among high school students in Kerman, a city in Southeast Iran and revealed that the rate for lifetime use of drugs in 3318 high school students was 26.5 % among boys and 11.5% among girls. **4.3.1.2 Student Gender that Abuses Drugs and Substance the most**

Data was also collected from respondents on gender that abuses drugs and substances the most in public secondary schools among students. Results are as presented in Table 4. **Table 4: Student gender that abuses drugs the most**

	Percent	Frequency
Male 86 66.2 Female 44 33.8		
Total	130	100.0

According to findings presented in Table 4 above, within public secondary schools of Kiambu County Kenya, the male students 66.2% abuses drugs and substances the most compared to the female gender out of whom only 33.8% abuse drugs and substances. Therefore, in the public secondary schools, male students are the highest drugs and substance abusers making drugs and substance abuse more prevalent among the male than female students in Kiambu County Kenya. This is supported by a study in South Africa, Tshitangano and Tosin (2016) who established that the majority of the male (25%, n=35) and female learners (7%, n=13) confirmed having friends or colleagues who were substance users. Ahamdi and Hasani (2003) in Shiraz a large city located in the southern part of the country have found rates of lifetime use and current use of drugs to be significantly higher among boys than among girls. **4.3.1.3 Drugs and Substances Mostly Abused by Students**

Information was collected on the drugs and substances mostly abused by public secondary school students in Kiambu County. Results are as presented in Table 5.

Table 5: Drug mostly abused by students

	Frequency	Percent
Alcohol	52	40.0
Cigarettes	24	18.5
Bhang	30	23.1
Khat	20	15.4
Cocaine	4	3.1
Total	130	100.0

The most abused drugs and substance by public secondary school students in the study was found to be alcohol as 40% of drugs and substance abusers used it, followed by bhang as 18.5% used it, then cigarettes as 18.5% of students smoked it, Khat was found to be chewed by 15.4% of the students while only 3.1% of the students used cocaine. Therefore, alcohol is the most abused substance in Kiambu County public secondary schools by students. Similarly, in Iran, alcohol is considered an illicit drug and its use is banned for all age groups. Unfortunately this situation does not prevent its use among adolescents, and, in fact, alcohol is the most common illicit substance among Iranian high school students, especially among boys (Momtazi, et al., 2009).

4.3.1.4 Level at which Drugs and Substance is most common among Students

The researcher further collected information on the level of secondary school education that drugs and substances was most common among students in Kiambu County public secondary schools. Findings are as presented in Figure 3.

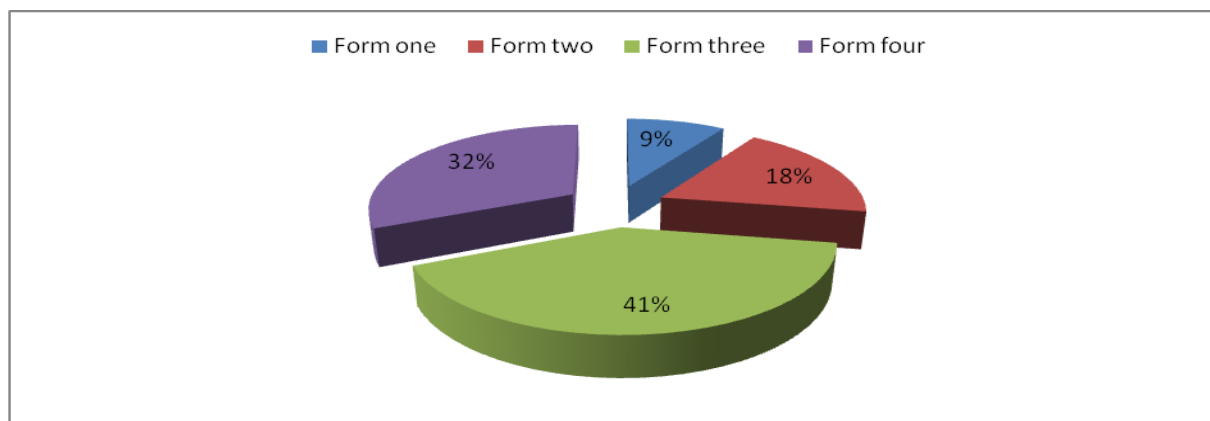


Figure 3: Level at which drugs and substance abuse is most common among students

Findings in Figure 3 reveal that in Kiambu County public secondary schools, 41% of drugs and substance abusers were form three students, 32% were form four students, 18% were form two students while 9% were form one students. From these results, it is clear that the rate of drugs and

substance abuse was highest among form three learners implying that form three learners in Kiambu County public secondary schools abused drugs the most, followed by form fours, then form twos while form ones were the least abusers of drugs and substances. Similar to the present study which assessed DSA by class the students were in, in Iran, Momtazi et al. (2009) reported lifetime history of cannabis use at 0.2% in secondary school boys aged 12–14 and 8.2% for high school boys aged 15–17 supporting the notion that DSA is most prevalent amongst older secondary school students than the younger ones.

4.3.2 Chi-Square Test

4.3.2.1 Influence of Gender on Drugs and Substances Abused by Students

The gathered data were crosstabulated to show how gender relates to the abused drugs and substances and findings presented in Table 6.

Table 6: Gender and Drugs mostly abused by students

	Drug mostly abused by students					
	Alcohol	Cigarettes	Bhang	Khat	Cocaine	Total
Student gender that abuses	Male 41	10	16	17	2	86 drugs the most
	Female 11	14	14	3	2	44
Total	52	24	30	20	4	130

The above results reveal that more males $n=40$ than female students $n=11$ abused alcohol, slightly more females $n=14$ than male students $n=10$ smoked cigarettes, slightly more male $n=16$ than female students $n=14$ smoked bhang, more male $n=17$ than female students chewed Khat while equal number of male $n=2$ and female students $n=2$ abused cocaine as findings in Table 6 reveal. Therefore, in Kiambu County public secondary schools, more male than female learners abuse most of the available drugs and substances in the community. A separate study revealed that the numbers for heroin use were 5.5% and 0.2% for boys and girls, respectively. Cannabis is used in Iran in both the form of grass (marijuana) and hashish. The study showed a 2.8% lifetime use of cannabis in high school students. The rate was 5.7% among boys, and none of girls had history of cannabis use (Momtazi et al., 2009).

4.3.2.2 Chi-Square Test

To test the relationship between gender and drugs and substance abuse at 95% confidence level, a chi-square test was carried out and findings presented in Table 7.

Table 7: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.010(a)	4	.003
Likelihood Ratio	16.230	4	.003
Linear-by-Linear Association	.545	1	.460
N of Valid Cases	130		

Findings presented above reveal that there is a significant relationship between gender and drugs and substance abuse among public secondary school students as the calculated p -value $p=0.003$ is less than $p=0.05$ at the $df=4$. Therefore, there exists a statistically significant relationship between students' gender and drugs and substance abuse among public secondary school students in Kiambu County Kenya.

4.4 Peer Pressure and Drugs and Substance Abuse among Public Secondary School Students

The second objective of the study was to identify the influence of peer pressure on drugs and substance abuse among public secondary school students in Kiambu County Kenya.

4.4.1 Descriptive Statistics

4.4.1.1 Extent to which Peer Pressure Influence Drugs and Substance Abuse among Students

Data was also collected on the extent to which peer pressure influenced drugs and substance abuse among public secondary school students in Kiambu County and findings presented in Table 8.

Table 8: Extent to which peer pressure influence drugs and substance abuse among students

	Frequency	Percent
To a very high extent	40 30.8	To a high extent
	63 48.5	To a moderate extent
	27 20.8	
Total	130	100.0

In Table 8, the results presented reveal that peer pressure influences drugs and substance abuse (DSA) among secondary school students to a high extent as 48.5% of the respondents mentioned, 30.8% mentioned it influenced DSA to a very high extent while 20.8% mentioned that peer pressure influenced DSA to a moderate extent. This implies that peer pressure among public secondary school learners influence DSA to a high extent in Kiambu County Kenya. Kiiru (2004) also established that peer pressure had a great influence on drugs and substance abuse among learners hence supporting the current study results among public secondary school students in Kiambu County.

4.4.1.2 Aspects of Peer Pressure Influencing Drugs and Substance Abuse among Learners

Information was collected on aspects of peer pressure that influenced DSA among public secondary school students and findings presented in Table 9.

Table 9: Aspects of peer pressure influencing drugs and substance abuse among learners

	<u>Percent</u>	
<u>Frequency</u>		
Having friends who abuse drugs	36	27.7
Having friends who peddle drugs and substances	64	49.2
Having friends with knowledge of drugs and substances suppliers	30	23.1
Total	130	100.0

According to the study findings as findings presented in Table 9 show, having friends who peddle drugs and substances was the main aspect of peer pressure that influenced DSA the most among students as mentioned by 49.2%, 27.7% mentioned having friends who abused DSA while 23.1% mentioned having friends who knew drugs and substance suppliers was an aspect of peer pressure

related to DSA. Therefore, friends who are peddling DSA's are the main peer pressure related determinants of DSA among public secondary school students in Kiambu County Kenya. A different survey of youth in Southern Nigeria, also found out that the source of drugs for drug using-students was friends in the same or neighbouring schools, and students who reported using drugs had more drug using than abstinent friends (Imbosa, 2002).

4.4.1.3 Drug and Substances Greatly Influenced by Peer Pressure

The study further sought to establish drugs and substances whose abuse is influenced by peer pressure among public secondary school students in Kiambu County. Figure 4 presents the results.

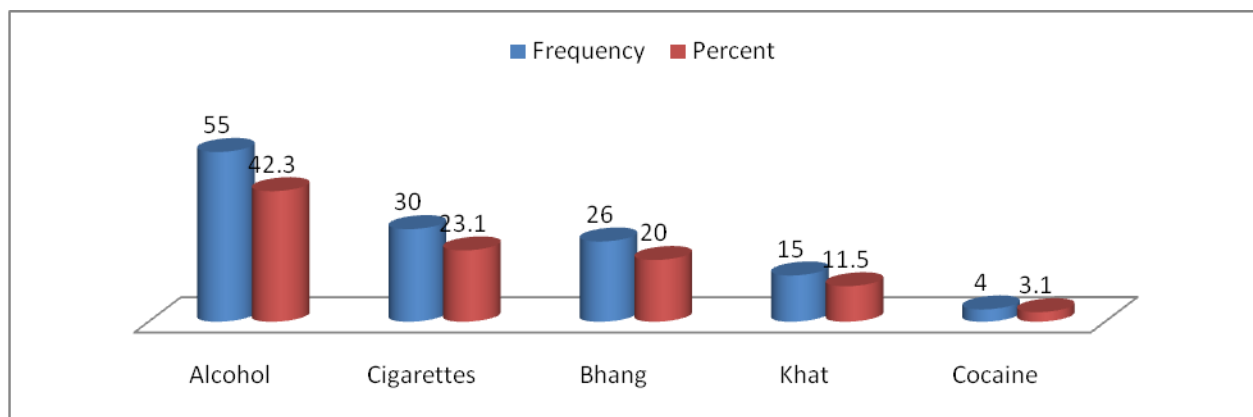


Figure 4: Drug and substances greatly influenced by peer pressure

The findings of the study as presented in Figure 4 reveal that alcohol consumption by students was the most influenced substance 42.3% by peer pressure, 23.1% mentioned cigarette smoking, 20% mentioned bhang smoking, 11.5% mentioned Khat chewing while 3.1% mentioned cocaine consumption as being influenced by peer pressure among public secondary school students in Kiambu County. Though Imbosa, (2002) revealed that peer pressure influenced DSA among learners, the author did not specify specific drugs and substances whose consumption by learners largely depended on peer pressure unlike the current study.

4.4.1.4 Gender that Peer Pressure Influence Drugs and Substance Abuse the Most

Additional data was gathered on the gender that is influenced into DSA the most by peer pressure among public secondary school students of Kiambu County. Results are as in Table 10. **Table 10: Gender that peer pressure influence drugs and substance abuse the most**

	Frequency	Percent
Male	69	53.1
Female	61	46.9
<u>Total</u>	<u>130</u>	<u>100.0</u>

From these results, more male learners 53.1% get influenced into drugs and substance abuse by peer pressure compared to 46.9% of their female counterparts. Therefore, peer pressure influences more male learners into drugs and substance abuse in Kiambu County. Unlike the study by Mayberry, et al. (2009) who revealed that peer pressure was a major factor influencing drugs and

substance abuse among youths and failed to show which gender was more influenced by peer pressure into DSA, the current study addressed this gap in Kiambu County public secondary schools. **4.4.2 Chi-Square Test**

The study also tested for the relationship between peer pressure and drugs and substance abuse and findings presented in Table 11.

Table 11: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.382(a)	8	.000
Likelihood Ratio	42.393	8	.000
Linear-by-Linear Association	20.083	1	.000
N of Valid Cases	130		

The chi-square test results reveal that there exists a statistically significant relationship between peer pressure and drugs and substance abuse among public secondary school learners at 95% confidence level in Kiambu County. This is because the calculated p-value of $p=0.000$ is lower than $p=0.05$ at the $df=8$ indicating that there exists a statistically significant relationship between peer pressure and drugs and substance abuse among public secondary school students in Kiambu County. Therefore, the researcher rejects the null H_0 which stated that there is no relationship between peer pressure and drugs and substance abuse among public secondary school learners in Kiambu County Kenya. This is supported by Ongwae (2016) who carried out a study in Starehe Sub-County and revealed that teachers reported peer pressure (38%) as the main cause of drug and substance abuse among students.

4.5 School Type and Drugs and Substance Abuse among Public Secondary School Students

The last objective of the study was to investigate the influence of school type on drugs and substance abuse among public secondary school students Kiambu County Kenya.

4.5.1 Descriptive Statistics

4.5.1.1 School Type

Data was collected from participants on the type of schools they were teaching in or employed by and results presented in Figure 5.

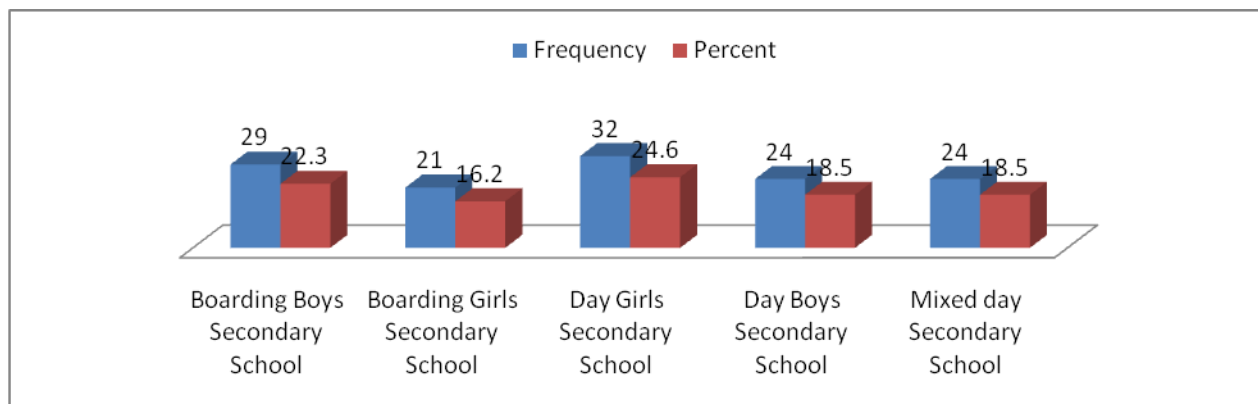


Figure 5: School type

Results of the study as shown in Figure 5 reveal that 22.3% of the participants came from boarding boys secondary schools, 16.2% were from boarding girls secondary schools, 24.6% were day girls secondary schools, 18.5% were from day boys secondary schools while the remaining 18.5% were from mixed day secondary schools. This shows that the respondents came from various public secondary schools in the County hence the findings are generalized to all learners from these schools. In a separate study, King'endo (2014) studied drugs and substance abuse among different categories of schools which were boys/girls/mixed mixed secondary schools.

4.5.1.2 Influence of School Type on Drugs and Substance Abuse

The researcher also collected information on the influence of school type on drugs and substance abuse among students and the data presented in Table 12.

Table 12: Influence of school Type on drugs and substance abuse

	Frequency	Percent
Being in a mixed school greatly influence drugs and substance abuse	58	48.4
Belonging in a single gender school influence drugs and substance abuse	43	33.1
Being in a boarding school influence drugs and substance abuse	23	17.7
Total	130	100.0

The results reveal that being in a mixed school greatly influenced drugs and substance abuse among public secondary school learners as mentioned by 48.4% of the respondents, 33.1% mentioned that belonging to a single gender school influenced drugs and substance abuse whereas 17.7% mentioned being in a boarding school influenced drugs and substance abuse among the learners. This implies that drugs and substance abuse among public secondary school learners in Kiambu County is largely dependent on the type of public secondary school students attended. These results are supported by King'endo (2014) who established that school types contributed to students' drug abuse. The study found out that there was a significant relationship between drug abuse and the

category of school a student attended. 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.

4.5.2 Multiple Regression Analysis

4.5.2.1 Model Summary

In Table 13, a model summary on how school type influence drugs and substance abuse among public secondary school students is presented. **Table 13: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201(a)	.040	.033	1.387

a Predictors: (Constant), Influence of school type on drugs and substance abuse

Results in Table 13 above show that school types affect drugs and substance abuse among public secondary school students in Kiambu County Kenya by 40% as explained by $R^2=0.040$. This indicates that there is a slight relationship between the independent and dependent variables studied. Based on these results, other variables not studied predict preterm deliveries in the study area by 60% only. Therefore, school types in Kiambu County predict drugs and substance abuse among public secondary students by only 40% while other factors play a major role in influencing DSA by 60%.

4.5.2.2 ANOVA

Analysis of variance was further used to test the relationship between school types and DSA among students and results presented in Table 14.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.291	1	4.291	5.386	.022(a)
	Residual	101.986	128	.797		
	Total	106.277	129			

Table 14: ANOVA

a Predictors: (Constant), School type

b Dependent Variable: Influence of school belonging on drugs and substance abuse

Analysis of variance findings reveal the existence of slight significant relationship between peer pressure and drugs and substance abuse among public secondary school students in Kiambu County with a p value of 0.022. The F calculated value for the study at 95% confidence level was 5.386 also indicating a slight statistical relationship between variables investigated by this

research. Tshitangano and Tosin (2016) in a South African study also established that there was a significant relationship between school types and DSA among learners.

4.5.2.3 Coefficients

Lastly, regression coefficient results are presented in Table 15. **Table**

15: Coefficients

		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
Model		B	Std. Error	Beta	B		Std. Error
1	(Constant)	2.212	.182		12.161		.000
	School type	-.129	.056	-.201	-2.321		.022

a Dependent Variable: Drugs and substance abuse

The regression equation was $Y = 2.212 + -0.129X_1$. The results in Table 15 reveals that holding other factors constant at 0, drugs and substance abuse among public secondary school students in Kiambu County is statistically significant at $p=0.000$. The results further show that there is a slight statistical significant relationship $p=0.022$ between school type and rugs and substance abuse among public secondary school students in Kiambu County. Therefore, it is clear from the study results that school type has a slight significant relationship with drugs and substance abuse among public secondary school students in Kiambu County. Hence, the researcher rejects the null H_0 which stated that there was no relationship between school type and rugs and substance abuse among public secondary school students in Kiambu County. This is supported by Tshitangano and Tosin (2016) in a South African study which showed that there was a significant relationship between school types and DSA among learners.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 Prevalence of Drugs and Substance Abuse among Public Secondary School Students

The results of the study revealed that drugs and substance abuse was generally prevalent among public secondary school students in Kiambu County. However, the male learners in this study were found to be mostly affected by drugs and substance abuse compared to the female students in similar schools. The study revealed that numerous drugs were being abused by the students; however, alcohol was the most abused substance by the students while cocaine was the least abused drug. Majority of students who abuse drugs in Kiambu County public secondary schools are form threes, followed by form fours while form ones rarely abuse drugs. However, there exists a significant relationship between gender and drugs and substance abuse among public secondary school students as the calculated p -value $p=0.003$ is less than $p=0.05$ at the $df=4$. Therefore, there

exists a statistical significant relationship between students' gender and drugs and substance abuse among public secondary school students in Kiambu County Kenya.

5.1.2 Peer Pressure and Drugs and Substance Abuse among Public Secondary School Students

The study also established that peer pressure influenced drugs and substance abuse among public secondary school students to a high extent. Further, having friends who peddle drugs and substances was found to be the main aspect of peer pressure that influenced DSA the most among students, followed by having friends who abused DSA and lastly, having friends who knew drugs and substance suppliers. Therefore, friends who are peddling DSA's are the main peer pressure related determinants of DSA among public secondary school students in Kiambu County Kenya. According to the results, alcohol consumption by students is most influenced by peer pressure followed by cigarette smoking, bhang smoking, Khat chewing and cocaine consumption in Kiambu County. More male students get engaged in drugs and substance abuse due to peer pressure than female students in the study area. The chi-square test results revealed that there exists a statistically significant relationship between peer pressure and drugs and substance abuse among public secondary school learners at 95% confidence level in Kiambu County. This is because the calculated p-value of $p=0.000$ is lower than $p=0.05$ at the $df=8$ indicating that there exists a statistically significant relationship between peer pressure and drugs and substance abuse among public secondary school students in Kiambu County.

5.1.3 School Type and Drugs and Substance Abuse among Public Secondary School Students

Lastly, the study established that being in a mixed school greatly influenced drugs and substance abuse among public secondary school learners, followed by belonging to a single gender school whereas being in a boarding school influenced drugs and substance abuse among public secondary school learners the least. This implies that drugs and substance abuse among public secondary school learners in Kiambu County is largely dependent on the type of public secondary school students attend. The regression results revealed that holding other factors constant at 0, drugs and substance abuse among public secondary school students in Kiambu County was statistically significant at $p=0.000$. The results further show that there was a slight statistical significant relationship $p=0.022$ between school type and drugs and substance abuse among public secondary school students in Kiambu County.

5.2 Recommendations

The study therefore recommends that;

- Effective strategies are put in place to deal with drugs and substance abuse among public secondary school students in Kiambu County with special focus on gender as the problem affects one gender more than the other
- That existing public schools find ways of dealing with the established peer related factors that influence drugs and substance abuse among students in Kiambu County if the problem is to be minimized.
- That school heads of mixed public secondary schools work closely with interested parties to find out why their schools record the highest numbers of student drug abusers and find immediate effective protective measures against the vise

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