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## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/12790

DOI URL: <http://dx.doi.org/10.21474/IJAR01/12790>



### RESEARCH ARTICLE

#### INFLUENCE OF SUBSTANCE ABUSE ON CONTRACEPTIVE USE AMONG UNDERGRADUATE STUDENTS

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#### Manuscript Info

##### Manuscript History

Received: 25 February 2021

Final Accepted: 30 March 2021

Published: April 2021

##### Key words:-

Addictive Behavior, Contraceptives, Utilization, Kenya

#### Abstract

Studies have shown a relationship between drinking and ineffective contraception and condom use. The rate of binge drinking and ineffective contraception or ineffective condom use among college women was proved to be high. This article examined the influence of addictive behavior on utilization of contraceptives among undergraduate students. Addictive factors that were compared with utilization included attending club and parties, alcohol consumption, and smoking. The data used in analysis was based on stratified probability sample of 453 respondents interviewed in 2017 from Masinde Muliro University of Science and Technology (MMUST). Quantitative and qualitative data was analyzed using descriptive statistics. The study revealed that there was a statistical significant relationship between respondent who frequently attended clubs and parties and contraceptives utilization (OR=0.48 95%CI: 0.27-0.84, p=0.01). However, patronizing clubs and parties frequently reduced the probability of using contraceptives by 48% compared to those who did not frequent clubs or parties. Also, alcohol consumption was significantly associated with contraceptives utilization (OR=0.33: 95%CI: 0.18-0.59, p=0.00). This result also revealed that respondents who consumed alcohol were 0.33 times less likely to use contraceptives than those who did not indulge in alcohol. Smoking was not statistically significantly associate with contraceptive utilization (p=0.85). The article recommends that HIV and AIDS peer educators should be tasked with educating on sexual and reproductive health and the importance of implementing specific programs in institutions of higher learning to limit the risks of addiction and partying, not only in terms of alcohol abuse, but also addictive behavior such as smoking.

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#### Introduction:-

Substance abuse and use of alcohol are becoming an issue of health concern among ages between 15 and 24 years. Studies have revealed that about 83% of students in the same age bracket abuse illicit drugs (Zaman, 2015) A number of researchers have associated alcoholism among university students with high rates of careless sexual behaviour and inconsistency in contraceptive use (Michael et al., 2009). Some studies have shown that this is the age group that begins to actively explore their sexuality (Kayongo, 2013). At the same time, just like other students in institutions of higher learning, university students in Kenya engage in self-destructive behaviours that lead to sexual

transmitted infections (STIs) or human immunodeficiency virus (HIV) and unwanted pregnancies (Kiptoo et al, 2013).

Although many students understand that teen pregnancy is a major problem in Kenya, college students struggle with pregnancy planning, resulting in numerous unplanned pregnancies (Frost et al, 2012). These unwanted pregnancies result in a large number of single parents who struggle with finances, interrupted or indefinitely postponed education, unstable relationships, poor health and negative educational, and social consequences. Related studies in Kenya show high prevalence of pregnancies amongst university students (Ikamari et al, 2013).

One of the drugs commonly abused and which negatively influences use of contraceptives among university students is alcohol. Ingersoll et al., (2008) study linked alcohol abuse and ineffective contraception and condom use. The prevalence of ineffective condom use was higher among binge drinking group compared with non-abusers of alcohol. This was, however, not the case in Mehra et al., (2012) study where the authors found no association between alcohol consumption and contraceptive use.

Studies have also demonstrated that cigarette smoking adversely affects cycle control among oral contraceptive users (Rosenberg et al., 2016). The study further found oral contraceptive efficacy impairment in smokers.

Several studies have revealed that alcohol abuse by university students influences risky sexual behavior. In such relationships both instigator cues (arousal) and inhibitory cues (restraint) are presumed to be high, as each partner weighs potential sexual health risks. According to the alcohol myopia theory, alcohol may limit a person's capacity to weigh negative outcomes. A study by Gilchrist (2012) show that more frequent alcohol consumption was significantly associated with reports of negative sexual experiences ( $p < .01$ ). Single episode heavy drinking was related with not using condoms ( $p < .05$ ) and negative sexual experiences ( $p < .01$ ). These relationships did not vary significantly by age, country of birth, or place of residence.

Others studies have also associated partying and clubbing by university students as a source of risky sexual behavior. For instance, Harford et al., (2003) and Wechsler et al., (2000) posit that parties constitute an integral part of the college culture and serve as primary settings where students engage in heavy drinking, often leading to negative outcomes. Some of the things that can go wrong at teenage parties and clubs include: binge drinking, unprotected sex and sexual assault, among others. According to Pedersen and LaBrie (2007) the pervasiveness of "pre-partying" behaviors (alcohol consumption prior to attending an event where more alcohol may be consumed) has also been documented among college populations. Further, research has shown that students' drinking behaviors at college parties vary as a result of their own individual characteristics like gender (males vs. females) and perceived campus drinking norms, as well as party specific situational influences, such as party size, location, duration and level of social control (Demers et al., 2002).

In Kenya, youth aged 10-24 constitute 36 percent of the total population (Kenya National Bureau of Statistics, 2009). The age of University undergraduate students happen to fall in this group. Previous studies indicate that complications after unsafe abortion caused 13 per cent of maternal deaths (Nduvi, 2015). In spite of increasing rates of teenage pregnancies and unsafe abortion in Kenya, not much research has been done on the influence of addictive behavior on utilization of contraceptives among undergraduate students in Kenya. Very often, university students are at an age and in a social context, where they are susceptible to unintended pregnancy, and its negative consequences. These have been linked to drug abuse, among other factors. The need to devise steps aimed at reducing the incidence of drug abuse and increasing utilization of contraceptives among university students. This study sought to establish the influence of addictive behavior on contraceptive utilization among undergraduate students of Masinde Muliro University of Science and Technology in Western Kenya.

### **Methodology:-**

This study employed a descriptive survey design to examine the influence of addictive behavior on utilization of contraceptives among undergraduate students. The universe of the study comprised undergraduate students at the main campus who were in their first, second, third and fourth year of study. Sample size for the survey was determined using Fischer formula at a standard error margin of 5%, a confidence level of 95%, and a 22% response distribution, a sample size of 453 was then derived. The population was stratified by the year of study to reflect the distribution of undergraduate at the university to participate in the study. Undergraduate students studying from campuses and learning centers outside the main campus were excluded from the study. Primary and secondary data

was collected through the questionnaires, in-depth interviews and document analysis. The selection of these tools was informed by the nature of the data to be collected, time available as well as the objective of the study. The respondents were asked about their social demographic factors that included age, sex and marital status. Other items included the utilization of family planning, religion, family status and, nature and type of school attended. To inquire about influence of addictive behavior on utilization of contraceptives, respondents were asked about attending clubs and parties, alcohol consumption and smoking. To estimate the reliability of the instrument, a pilot survey involving sixty (60) undergraduate students was carried out in the month of November 2016 at Masinde Muliro University of Science and Technology (MMUST), Cronbach alpha was then established from the responses using Statistical Package for the Social Sciences (SPSS). The Cronbach's alpha was 0.822. The researcher also determined the content validity of the questionnaires as a way of ensuring that the data collected using the instrument represent adequately the domain of the variables measured. Data from the completed questionnaires was analyzed using SPSS to provide frequencies, means and percentages to describe the population. The actual study was done from January to July 2017.

## Results:-

### Socio-demographic Distribution of the Respondents

The respondents comprised undergraduate students in MMUST who were in their first, second, third and fourth year of study. A total of 453 undergraduate students from MMUST participated in the study. Table 1 presents the number of respondents categorized by gender, age, religion, age left high school, type of the school, nature of parents, religion affiliation of the school and the nature of the school. As indicated in table 4.1, almost an equal number of male (49.6%) and female (50.4%) gender participated in the study. Majority (67.1%) of respondents left high school when they were less than 18 years old while 32.9% of them completed high school when they were above 18 years old.

In terms of the type of the high school attended, results indicate that majority (85.4%) of the respondents reported that they attended public schools while 14.6% attended privately owned schools. Most of the respondents (84.1%) went to religious-affiliated schools while 15.9% attended non-religious-affiliated schools. The proportion of students who attended mixed (50.3%) and single gender 49.7% schools was comparable. Majority (85.2%) had living parents. Most (60.7%) the participants stayed with both parents.

Regarding religious affiliation, more than half (55.6%) were Protestants followed by Catholics at 34.9% and Muslims at 4.0%.

**Table 1:-** Socio-Demographic Characteristics of the Respondents (n=453).

Variable	Category	n	%
<b>Gender</b>	Male	225	49.6
	Female	228	50.4
<b>Age</b>	20 or below	218	48.1
	Above 20	235	51.9
<b>Age left high school</b>	18 or below	304	67.1
<b>School</b>	Above 18	149	32.9
<b>Type of School</b>	Public	387	85.4
	Private	66	14.6
<b>Religion affiliation of the School</b>	Affiliated	381	84.1
	Not affiliated	72	15.9
<b>Nature of School</b>	Mixed	228	50.3
	Single Set	225	49.7
<b>Parents Status</b>	Mother alive	386	85.2
	No	67	14.8
	Father alive	357	78.8
	No	96	21.2
	Stay with both Parents	275	60.7
	Stay with single Parent	178	39.3
<b>Religion</b>	Catholic	158	34.9
	Protestants	252	55.6

	Muslim	18	4.0
	Others	25	5.5

### Influence of Addictive Behavior on utilization of contraceptive

Three key addictive behavior variables were considered in this study. These were attending clubs and parties, alcohol consumption and smoking. Table 2 shows results on the influence of addictive behavior on utilization of contraceptives. The result of logistic regression reveal a statistical significant relationship between respondents who frequently attended clubs and parties and contraceptives utilization (OR=0.48 95%CI; 0.27-0.84, p=0.01). Those who attended such clubs and parties were 50% less likely to use contraceptives. Equally, alcohol consumption was significantly associated with contraceptives utilization (OR=0.33: 95%CI; 0.18-0.59, p=0.00). Students who consumed alcohol were 66% less likely to use contraceptives than those who did not indulge in alcohol. Smoking was not statistically significantly associate with contraceptive use (p=0.85).

**Table 2:-** Influence of Addictive Behavior and Contraceptive Utilization.

Factor	Category	Contraceptive Utilization		OR	95% CI	P Value
		Yes (%)	No (%)			
	Frequency					
<b>Attends Club and Parties</b>	Yes	73 (71.6)	29 (28.4)	0.48	0.27-0.84	0.010
	No	174 (84.1)	33 (15.9)			
<b>Alcohol Consumption</b>	Yes	44 (63.8)	25 (36.2)	0.33	0.18-0.59	0.000
	No	222 (84.4)	41 (15.6)			
<b>Smoking</b>	Yes	20 (64.5)	11 (35.5)	1.08	0.5-2.32	0.851
	No	223 (62.8)	132 (37.2)			

### Discussion:-

This study sought to determine the influence of addictive behavior on utilization of contraceptives. The findings of this study suggest that among the students who frequented clubs and parties, a comparatively smaller proportion(71.6%)used contraceptives unlike their counterparts(84.1%)who were not clubbing. Similar findings have been reported in other studies.

Studies conducted elsewhere have also associated parting and clubbing by university students as a source of risk sexual behavior. For instance Harford et al., (2003) and Wecheler et al., (2000) posit that parties constitute an integral part of the college culture and serve as primary settings where students engage in heavy drinking, often leading to negative outcomes. Some of the things that can go wrong at teenage parties and clubs include: binge drinking, unprotected sex and sexual assault among others. According to Pedersen and LaBrie (2007) the pervasiveness of “pre-partying” behaviors (alcohol consumption prior to attending an event where more alcohol may be consumed) has also been documented among collegiate populations

Similarly, those who consumed alcohol frequently were (33%) less likely to have used contraceptives. The results are consistent with a study done in Sweden on Contraceptive use and associated factors among high school students. In the study, only 24% of respondents who had sexual intercourse under influence of alcohol used condoms (Larsson & Hanson, 2007). Another study done by Ingersoll revealed that condom use was reduced by risky drinking at (OR 1.90, CI 1.29–2.8)(Ingersoll et al., 2014). In another study it was reported that alcohol use has an association with impaired judgment during sexual intercourse reducing the likelihood of condom use(Allen, Myers, & Ray, 2016). Twenty six percent of respondents in a study done on risky sexual behaviour and drug use in the recreational nightlife context reported of lack of using condom due to being too drunk or drugged up(Calafat, Juan, & Becona, 2014).

However, respondents who frequented clubs and who consumed alcohol were found to be less likely to use condoms than those who did not engage in such activities. This position is supported by Tripp and Viner (2005) in their study which found that unsafe sex is associated with having sex while drunk and inadequate self-efficacy to resist

pressure. In their study, Scott-Sheldon, et al. (2010) also concluded that alcohol abuse by university students was associated with elevated rates of risky sexual behavior with regard to inconsistent condom use. Although majority of students who frequent clubs and consume alcohol are conscious of the dangers associated with such excursions this consciousness tend to be blurred by peer pressure and lack of control while intoxicated. According to the alcohol myopia theory, alcohol limits a person's capacity to weigh negative outcome (MacDonald, et al., 2000).

The study did not find any statistical relationship between student who were smokers and contraceptive usage. Consequently, smokers had a high probability of using contraceptives. This means that smoking does not influence the use of contraceptives. However, studies done elsewhere have demonstrated that cigarette smoking adversely affects cycle control among oral contraceptive users (Rosenberg et al., 2016).

### Conclusion:-

There was an association between attending clubbing and alcohol consumption, and contraceptives utilization. This finding point to the conclusion that although students were conscious of the risks associated with clubbing and alcohol consumption in relation to risky sexual behavior many still engage in heavy drinking, often leading to negative outcomes. Although smoking was not associated with contraceptive usage, smoking was found to adversely affect cycle control among oral contraceptive users.

### Recommendations:-

1. HIV and AIDS peer educators should be tasked with educating on sexual and reproductive health.
2. Research findings highlight the importance of implementing specific programs in MMUST to limit the risks of addiction and partying, not only in terms of alcohol abuse, but also addictive behavior such as smoking.

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