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Level of risk in substance use among undergraduate students in Kenya: Implications for prevention intervention

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Abstract

Despite the negative effects of substance use on university students, the level of risk of substance use and its implication on prevention interventions in Kenya is yet to be fully explored. The main objective of the study was to determine the level of risk in substance use among students and its implications on prevention interventions. Descriptive cross sectional survey research design was used. A World Health Organization questionnaire - Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) was adapted to measure the level of risk and student awareness of prevention interventions. The questionnaires were distributed to 1,500 participants from 12 universities across Kenya. An in-depth interview was conducted among the university counsellors to find out the efficacy of prevention interventions. Overall, lifetime prevalence for substance use was 48.6% and current prevalence rate was 37.9% among undergraduate students in Kenya. Public universities reported significantly higher prevalence of current use of substances than private universities. Those who had not used substances in the past three months before the study were 993 (69.5%), the low-risk users were 205 (14.3%), moderate risk users were at 187 (13.1%) and 44 (3.1%) of the respondents were high-risk users. Prevention interventions that were found in universities were mostly universal prevention strategies which targeted the entire student population without regard to the level of risk of individual students. The study concludes that substance use is a health problem in Kenyan universities and there is urgent need to develop and implement interventions that target moderate and high risk users.

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Introduction

Globally, there is an increase in the estimated total number of people who are at high risk level in their use of substances, therefore suffering from substance use disorder. The number now stands at 29.5 million (0.6% of the total population). The prevalence of substance use among young people is high, with nearly 70% of youths aged 15-49 worldwide having had used various substances at one point of their life. Among them, alcohol is the most used substance (UNODC, 2012).

In the institutions of higher learning worldwide, studies reveal an increase in substance use and especially the consumption of alcohol (Akmartov, Mikolajczyk, and Kramer, 2011; ArbourNicitopoulos, Kwan, Lowe, Taman, and Faulkner, 2010; Carter, Brandon, and Goldman, 2010; Chiauzzi, Donovan, Black, Cooney, Buechner, and Wood, 2011). In Europe, one-quarter of youth aged between 18-21 years reported having consumed an illicit drug in their lifetime. A survey conducted in Germany among university students reported 80% heavy drinking and 20% displayed problem drinking. In the USA and Australia, studies revealed that university students had a higher prevalence of alcohol consumption than non-college youths college student (Tse, 2011; Kypri, Cronin, and Wright, 2005).

In Africa, studies conducted in Nigeria, Ethiopia and South Africa on substance use among undergraduate students reported a high prevalence of substance use (Tesfaye, Derese, and Hambisa, 2014; Makanjuola, Daramola, and Obembe, 2007; Steyl, and Phillips, 2011). In Kenya, studies reveal a high prevalence of substance use among university students. About 60% of college students had used alcohol and nearly half suffered adverse effects of alcohol use disorder (NACADA, 2010), indicating that the students are at high risk level in substance use. Atwoli and colleagues reported high prevalence rate of 68% in public universities in Uasin Gishu District (Atwoli, Mungla, Ndungu, Kinoti, and Ogot, 2011). The study also revealed that students using substances reported negative effects including medical problems, engaging in unprotected sex, relationship problems and poor academic performance (Atwoli, Mungla, Ndungu, Kinoti, and Ogot, 2011). Despite the negative effects of substances use, the efficacy of prevention interventions in mitigating all levels of risk is yet to be explored.

Institutions of higher learning, being the machinery that upholds education, are expected to play a key role in prevention intervention strategies against substance use. Universities have an opportunity to offer the three prevention intervention programmes as stipulated by World Health Organization (Humenuik, Ali, Babor, Farrell, and Formigoni, 2008). This includes primary (universal), secondary (selective) and tertiary (indicative) prevention intervention strategies. Butcher and colleagues (Butcher, Hooley, and Mineka, 2011) describe the three prevention intervention programs as follows: the primary (universal) is meant for those individuals who are not using substances. The messages and programs are aimed at preventing or delaying the use of substances by providing all individuals with the information and skills necessary to prevent the substance use problem. Secondary (selective)

prevention intervention strategies are for those experimenting on substances; it targets those at higher-than-average risk for substance use, and aims at stopping development of substance use into substance use disorder. The selective prevention program entails conducting early screening to identify those who fall under the different levels of risk. Some of the interventions include Brief Alcohol Screening and Intervention for College Students (BASICS) developed in 1997 by Dimeff and colleagues (Dimeff, Baer, Kivlahan and Marlatt, 1999). Tertiary prevention strategies are for individuals who have developed substance use disorder. It helps people to manage health problems that have long term

consequences such as substance use disorder and relapse to substance use (Butcher, Hooley, and Mineka, 2011). Activities which may be included at this level of intervention are follow up programs such as inpatient and outpatient programs, Alcoholics Anonymous (AA), Narcotics Anonymous (NA) and After Care Services. Rehabilitation services which provide emotional support as well as psychotherapy towards psychological change along with growth of the individual's self-actualization also fall in this category of intervention.

National Institute on Drug Abuse [NIDA] recommends that prevention programs be designed to enhance protective factors and towards reversing or reducing known risk factors (NIDA, 2017). This has been supported by Khushabi, Moradi, and Habibi (2012) who assert that the most important achievement in the area of prevention is to emphasise risk and protective factors as a descriptive and predictive framework. In an attempt to curb substance use, institutions of higher learning in Kenya have put in place strategies that would postpone students' initial use of substance, reduce prevalence of use and intervene. This is through the establishment of students support services, counselling services, peer education programs, formulation of alcohol and drug policies, and encouraging alternative activities such as sports and declaring that the institution is drug-free. Most universities have campaigns against substance use where they create awareness during orientation of first year students and during the alcohol and drug awareness weeks (Tumuti, Wangeri, Waweru, and Rono, 2014; Ndegwa, Munene, and Oladipo, 2017). Most of these prevention strategies are designed to reach the entire student population and do not consider individual student's level of risk. The purpose of the study was to determine the level of risk of substance use among undergraduate students and whether prevention interventions strategies address these levels of risks in Kenya.

Methodology

This study adopted the cross sectional descriptive research. In depth interviews were conducted with university counsellors to find out the prevention interventions strategies used in universities. The target population was 451,081 undergraduate students, where 390,456 were in chartered public universities and 60,625 in chartered private universities. The sample size was 1,500 participants who were selected using multi-stage sampling technique from seven public and five private universities across Kenya drawn from urban, suburban and rural environments in five selected regions of Kenya. These regions were Coast, Western, Central, Rift Valley, and Eastern regions. The twelve universities were selected from ten counties across the country. The first section of the questionnaire asked for descriptive information including age, gender, religious preference and years of study. The second section adopted the World Health Organization (WHO) questionnaire - Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) - in order to gather data on substance use patterns and level of risk. Prevention interventions were measured using the Likert type scale which measured the respondent's awareness of the prevention interventions and substance use policies, engagement in extra curricula activities and availability of counselling interventions. An in-depth interview was conducted among the university counsellors to find out the efficacy of prevention interventions in mitigating all levels of risk.

Results

This cross-sectional study obtained information on 1,438 consented undergraduate university students from 12 universities in Kenya. The male respondents were 53.5% and female respondents were 45.4%. The respondents' age ranged from 17 - 33 years,

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Concerning religious preference, majority of the respondents were Christians (92.4%), of whom Protestants were 48.4%, Catholics were 30.2%, and Adventists were 13.8%. 3.5% were Muslims. Majority practised their religion of preference once a week (50.2%), followed by those who practiced their religion daily (35.4%).

Table 1 : University students' responses on life time use of any substance

Response	Public	Private	Overall
	n=781	n=675	1438
No	345 (51.9%)	385 (58.6%)	739 (51.4%)
Yes	427 (54.7%)	272 (41.4%)	699 (48.6%)

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The overall lifetime prevalence and current prevalence of substance use respectively 48.6% and 37.9% as shown in Table 2 and Table 3. Public university had higher prevalence for both lifetime and current use at 54.7% and 48.1% respectively while private university had 41.4% and 25.7% respectively. There was significant difference in the prevalence of current substance use between public universities and private universities in Kenya (M=.26, SD=.43); t (779) = 26.85, p=.000) as illustrated in Table 4.

Table 2: Current use of any substance

Variable	Public	Private	Overall
	n=781	n=657	n=1438
No	405 (51.9%)	488 (74.3%)	893 (62.1%)
Yes	376 (48.1%)	167 (25.7%)	545 (37.9%)

Table 3: Lifetime use of all substances

Variable	Public	Private	Overall
Tobacco	109 (14%)	78 (11.9%)	187 (13.0%)
Shisha	149 (19.1%)	107 (29%)	256 (17.8%)
Kuber	33 (4.2%)	29 (4.4%)	62 (4.3%)
Alcohol	376 (48.2%)	245 (37.3%)	621 (43.2%)
Cannabis	121 (15.5%)	83 (12.7%)	204 (14.2%)
Cocaine	28 (3.6%)	11 (1.7%)	39 (2.7%)
Amphetamine	19 (2.4%)	5 (0.8%)	24 (1.7%)
Inhalants	9 (1.9%)	5 (0.8%)	14 (1.0%)
Sedatives	34 (4.4%)	37 (5.6%)	71 (4.9%)
Hallucinogens	3 (0.4%)	9 (1.4%)	12 (0.8%)
Opioids	9 (1.2%)	10 (1.5%)	19 (1.3%)
Khat	100 (12.8%)	65 (9.9%)	165 (11.5%)
Muguka	63 (8.1%)	53 (8.1%)	116 (8.1%)

Table 4: Lifetime prevalence of substance use in Public and Private Universities

One-Sample Test							
University category		Test Value = 0					
		T	DF	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Public	Tobacco	11.252	778	.000	.142	.12	.17
	Alcohol	26.926	779	.000	.482	.45	.52
	Cannabis	11.960	779	.000	.155	.13	.18
Privare	Tobacco	9.402	655	.000	.119	.09	.14
	Alcohol	19.761	655	.000	.377	.34	.41
	Cannabis	9.741	655	.000	.127	.10	.15

Analysis of risk levels of substances using ASSIST scores of the respondents was done. As is shown in Table 5, the study revealed that majority of those who had used substances in the past three months were low risk users for alcohol; while for cannabis and tobacco, the majority were moderate risk users. Those who had not used alcohol, cannabis and tobacco in the three months prior to the study (referred to as non-users) were 99 (69.5%), 1,231 (88%) and 1,305 (93%) respectively.

Respondents who had used alcohol, cannabis or tobacco once or twice in the past three months, who referred to as low-risk users, were 205 (14.3%), 30 (2.2%) and 13 (0.9%) respectively.

The respondents who had used alcohol, cannabis and tobacco weekly in the past three months, who were referred to as moderate risk users, were 187 (13.1%), 112 (8%), and 76 (5.4%) respectively.

The findings also revealed that there were high risk users for alcohol 44 (3.1%), cannabis 19 (1.4%) and tobacco 9 (0.6%).

Table 5: Current use prevalence of substance use in Public and Private Universities

One-Sample Test						
		Test Value = 0				
University	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Public	26.857	779	.000	.481	.45	.52
Private	15.073	656	.000	.257	.22	.29

Analysis of students' awareness of prevention interventions, such as available substance use policies, respondent engagement in extra curricula activities and availability of counselling interventions are outlined in Table 6. The findings revealed that universities had put in place policies prohibiting the use of substance and students were aware. In public universities, 603 (79.1%) and in private universities 548 (85.6%) were aware of a policy that prohibits the use of substances in the university. Majority of the students agreed with the statement that they're in public universities and 390 (61.4%) in private universities. However, the students indicated that universities policies relating to alcohol use were not too strict, with 297 (39.5%) in public and 258 (40.3%) in private universities agreeing with the statement. Also, few students agreed with the statement that "our university's strict management style helps check substance use". Therefore, the implementation of the substance use policies could be insufficient or poor.

Table 6: Level of risk of common substances

Variable	Public n=781	Private n=657	Overall n=1438
Alcohol			
Never	488 (63%)	505 (77.1%)	993 (69.5%)
Low	132 (17.1%)	73 (11.1%)	205 (14.3%)
Moderate	122 (15.8%)	65 (9.9%)	187 (13.1%)
High	32 (4.1%)	12 (1.8%)	44 (3.1%)
Cannabis			
Never	621 (84.5%)	610 (92.8%)	1231 (88%)
Low	20 (2.7%)	10 (1.5%)	30 (2.2%)
Moderate	76 (10.3%)	36 (5.5%)	112 (8%)
High	18 (2.4%)	1 (0.3%)	19 (1.4%)
Tobaccco			
Never	647 (90.3%)	631 (96%)	1305 (93%)
Low	8 (1.1%)	5 (0.8%)	13 (0.9%)
Moderate	55 (7.4%)	21 (3.2%)	76 (5.4%)
High	9 (1.2%)	0 (0%)	9 (0.6%)

Majority of the respondents were aware of the counselling interventions in their institutions and they agreed that the interventions such as mentorship program, peer counselling and substance use prevention strategies were helpful in curbing substance use. The p-value on the statistically significant shows one item as statistically significant - I am aware of the counselling interventions in our campus ($p<.05$) Majority of the students in both public 591 (78%) and private universities 523 (82.4%) were aware of counselling services, and 585 (77.3%) in public and 501 (79%) in private agreed with the statement that they recommended other students with issues of substance use to counsellors. A majority 434 (57.5%) from public and 361 (57.2%) from private universities acknowledge that university counsellors played an important role in curbing substance use in the university. However, majority did not utilize the counselling services.

Findings from the in-depth interview with the university counsellors revealed that all universities under the current study had prevention interventions in place. Most universities had alcohol and drugs awareness weeks and counsellors facilitated peer counsellor training. An orientation program for all new students was one of the strategies used by all university counsellors to create awareness on the effects of substance use. Majority of the counsellors reported that students with issues of substance use rarely sought for help from the counsellors, and the only cases of substance use they handled were those referred by the disciplinary committee or students caught by security officers. Majority of the counsellors also indicated that they referred students who were at high risk of using substances to rehabilitation centres for treatment. The findings revealed that most of the interventions were at primary (universal) prevention level where all students were involved. There was no effort done to identify students who were at risk of using substances and no institution of higher learning had rehabilitation facilities for students with substance use disorder.

Table 7: A Descriptive on Percentage of Prevention Interventions

Prevention interventions	University	Agreed	Neutral	Disagree	p-value
I am aware of a policy on campus that bans the use of alcohol and drugs	Public	603 (79.1%)	81 (10.6%)	78 (10.2%)	.004
	Private	548 (85.6%)	40 (6.3%)	52 (8.1%)	
Our university is a smoke free zone	Public	462 (61.1%)	81 (10.7%)	213 (28.2%)	.379
		390 (61.4%)	81 (12.8%)	164 (25.8%)	
University policies related to alcohol are too strict	Public	297 (39.5%)	144 (19.1%)	311 (41.4%)	.902
	Private	258 (40.3%)	125 (19.5%)	257 (40.2%)	
Our university's strict management style helps check substance use	Public	372 (49.4%)	183 (24.3%)	197 (26.1%)	.083
	Private	346 (55.8%)	159 (25.6%)	115 (18.5%)	
Our university has substance use prevention programs	Public	445 (58.8%)	180 (23.8%)	132 (17.4%)	.536
	Private	393 (61.7%)	142 (22.3%)	102 (16.0%)	
A strong mentoring program discourages students from using alcohol	Public	511 (68.7%)	127 (17.1%)	106 (14.2%)	.412
	Private	423 (66.6%)	126 (19.8%)	86 (13.5%)	
Counselling interventions have helped students with alcohol and drug related problems	Public	450 (59.8%)	168 (22.3%)	135 (17.9%)	.198
	Private	382 (60.3%)	158 (25.0%)	93 (14.7%)	

I know students who have been trained as peer counsellors in our campus	Public	410 (54.8%)	147 (19.7%)	191 (25.5%)	.146
	Private	336 (53.1%)	151 (23.9%)	146 (23.1%)	
Peer counsellors have been of help to students with alcohol and drug abuse related problems	Public	429 (57.1%)	181 (24.1%)	141 (18.8%)	.096
	Private	354 (55.8%)	181 (28.5%)	99 (15.6%)	
I am aware of the counselling interventions in our campus	Public	477 (63.4%)	124 (16.5%)	151 (20.1%)	.001
	Private	392 (62.2%)	147 (23.3%)	92 (14.6%)	
Our institution has programs in place to help students with substance use related problems	Public	437 (58.0%)	180 (23.9%)	137 (18.2%)	.219
	Private	339 (53.4%)	164 (25.8%)	1 3 2 (20.8%)	
Mentoring programs have been helpful in curbing alcohol and drug abuse	Public	464 (61.5%)	154 (20.4%)	136 (18.0%)	.205
	Private	378 (59.5%)	154 (24.3%)	103 (16.2%)	
I am actively involved in university religious activities	Public	394 (52.0%)	181 (23.9%)	183 (24.1%)	.471
	Private	327 (51.3%)	169 (26.5%)	1 4 2 (22.3%)	
I am actively involved in extracurricular activities of our university	Public	518 (66.6%)	105 (13.9%)	132 (17.5%)	.720
	Private	431 (67.8%)	98 (15.4%)	107 (16.8%)	

Table 8: Effect of prevention intervention on substance use among university students

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Alcohol	Between Groups	5.633	2	2.817	4.043	.018
	Within Groups	912.608	1310	.697		
	Total	918.241	1312			
Cannabis	Between Groups	1.593	2	.796	1.947	.143
	Within Groups	522.279	1277	.409		
	Total	523.872	1279			
Tobacco	Between Groups	1.494	2	.747	2.841	.059
	Within Groups	338.493	1287	.263		
		339.988	1289			

Discussion

The lifetime prevalence of substance use in this study is 48.1%. These findings are higher compared to the findings from a national survey that was conducted by NACADA (NACADA, 2010) which showed that 37.1% had ever used at least one substance in their life time. The World Drug Report revealed that 20% of people aged 15-64 had used at least one substance in 2014. The high lifetime prevalence could be explained by the fact that the two surveys - NACADA and World Drug Report - were conducted on the general population and not specifically university students. High prevalence in university could be attributed to the unique environment and settings. For example, university environment has less supervision and restrictions compared to high school, thus students make transition from restricted life monitored

by parents and teachers to a more selfdirected life influenced by the university environment (Osman, Victor, Abdulmoneim, Mohammed, Abdalla, Ahmed, Ali and Mohammed, 2016), and thus are at higher risk of using substances.

A study conducted in Hamaraya University in Ethiopia revealed that the lifetime prevalence was 62% (Tesfaye, Derese, and Hambisa, 2014) and a different study conducted in Kenya among university students revealed that lifetime prevalence was 69.8% (Atwoli, Mungla, Ndungu, Kinoti, and Ogot, 2011). High prevalence of lifetime substance use among university students can determine the current use of substances in the university environment.

The prevalence of current use substance was 37.9%, which means that majority of those who had used substances in their life time had not used substances in the past three months before the study was conducted. This could be attributed to the fact that in the three months prior to the survey the respondents were in the university setting where in some universities there are restrictions regarding substance use. Public universities had higher current prevalence of substance use, at 48.1%, than private university at 25.7%. Several studies reveal high prevalence of substance use among students in public universities (Atwoli, Mungla, Ndungu, Kinoti, and Ogot, 2011; Tumuti, Wangeri, Waweru, and Rono, 2014; Magu, Mutugi, Ndahi and Wanzala, 2013). The lower prevalence in private universities could be attributed to the fact that most of the private universities under study were religious sponsored institutions which prohibits the use of substances in the university premises. Also, such institutions have an emphasis on religious activities and student involvement is encouraged, which reduces alcohol use in universities (Miller, 2013). However, few studies have shown high prevalence of substance use in private universities in Kenya (Ndegwa, Munene, and Oladipo, 2017).

The study reveals that majority of the students were at low risk of substance use, however there were students who were moderate risk users and high risks users. This is interpreted to mean that the substance use had caused damage to health, either physical or mental, and they were at moderate risk of health and other problems and were experiencing some of these problems currently (Butcher, Hooley, and Mineka, 2011). This category of moderate risk users is likely to progress to becoming high risk users with continued use of substance. This may result in increased risk of adverse health, with behavioural and social consequences.

The high risk users were respondents who had used substances daily in the past three months. The implication is that the respondent had a pattern of substance use that increased risk of dependence or is dependent on a substance and was probably experiencing health, social, financial, legal and relationship problems (Butcher, Hooley, and Mineka, 2011). Such a student may need to be referred to a rehabilitation treatment centre by the university student counsellor.

It is worth noting that majority of the student population fall in the category of non-users 993 (69.5%). Therefore, an intervention to delay their use of substance would be needed.

According to NACADA, those aged 15-65 years who reported current use of at least one substance were at 19.8% (NACADA, 2010). Among the young people aged 15-24, current use of the commonly used substance was alcohol 11.7%, tobacco 6.2% and cannabis 1.5%. The NACADA study also revealed the levels of high risk use where 5.5% were dependent on alcohol use, followed by 4.5% who were dependent on tobacco use, 1.5% dependent on khat, and 0.4% dependent on cannabis use.

A recent study conducted in a private Christian University in Kenya revealed higher levels of risk compared to the current study, where most of the university students who had used alcohol in the past three months were at moderate risk of alcohol use (at 45.7%), followed by high risk (39.3%), and low risk (15.0%) (Ndegwa, Munene, and Oladipo, 2017). However, the study had a sample of 140 respondents who were obtained using respondentdriven sampling that targeted students using alcohol or cannabis therefore the study may not be generalizable.

Another study conducted in Kenya among college students revealed that the respondents were at different levels of risk of using substances. The study showed that most of the respondents had a low risk for alcohol use at 98.1%; moderate risk at 1.7%; and those with high risk for substance use were 0.25% (Muriugi, Ndetei, Karanja and Cyrus, 2014). This compares with the findings of NACADA which revealed that among the youth aged 15-24 where high-risk users for alcohol, tobacco and cannabis were 5.5%, 4.5% and 0.4% respectively. This was higher than the current study where the high-risk users were 3.1% dependant on alcohol, 0.6% tobacco and 1.4% cannabis.

The findings on levels of risk have implications for prevention interventions because the different levels of risk may need specific type of intervention to appropriately help the university students. It is worth noting that majority of the student population fall in the category of non-users (69.5%). Therefore, appropriate interventions to delay those who are not using substances would be needed. The prevention interventions that were found in institutions of higher learning were at the primary (universal) level, therefore, students who were at the low, moderate and high level of risk did not benefit from the interventions.

Analysis of students' awareness of prevention interventions, such as available substance use policies, respondent engagement in extra curricula activities and availability of counselling interventions is outlined on Table 6. The findings revealed that universities had put in place policies prohibiting the use of substance and students were aware. In public universities, 603 (79.1%) and in private universities 548 (85.6%) were aware of a policy that prohibits the use of substances in the university. Majority of the students agreed with the statement that their university was a smoke free zone 462 (61.6%) in public universities and 390 (61.4%) in private universities. However, the students indicated that universities policies relating to alcohol use were not too strict 297 (39.5%) in public and 258 (40.3%) in private universities. Also, few students agreed with the statement that "our university's strict management style helps check substance use". Therefore, the implementation of the substance use policies could be insufficient or poor.

Many studies have shown that creating awareness may result in improved knowledge on the effects of the substances but may not be translated to reduced substance use among the youth (Scheier and Grenard, 2010). A study conducted in the USA revealed that there was no association between the antidrug campaign and the rates of past month alcohol use (Carpenter and Pechmann, 2011).

There was high level of agreement on the students' awareness of counselling services and interventions in their institutions. The majority of the respondents were aware of the counselling interventions and they agreed that the interventions such as mentorship program, peer counselling and substance use prevention strategies were helpful in curbing substance use is in line with a study that was conducted among tertiary institutions in Plateau State. The study revealed that university students were more aware of the counselling services than the polytechnic and college students

(Ibu and Maliki, 2010). However, the utilisation of counselling services was wanting, as a majority of the students did not utilise or seek counselling service.

In the current study, those who agreed with the statement, "I frequently utilise counselling services at my university" were 219 (29.3%) in public and 217 (34.2%) in private universities, while those who agreed with the statement "I seek counselling services because of alcohol and drug related issues" were 173 (23.1%) and 142 (22.5%) from public and private universities respectively. Lack of utilization of counselling services by most students has been explored in other studies and the reasons given include; lack of time, unwillingness to disclose personal issues to others and lack of trust and confidentiality of professionals at the centres (Okiei, 2015). A study conducted in public and private universities in Kenya (Kamuyu, Ndungo and Wango, 2016) revealed that though student had issues that desperately needed counselling interventions, only 35% sought for the counselling services. It would also mean that the students are not aware of the importance of seeking counselling services.

Conclusion

Substance use is a problem in universities where the majority of the students fall into low risk and moderate risk use categories. There is need for universities to use prevention strategies that will target the low, moderate and high-risk users separately. The interventions available to some extent cater for the non-users who were found to be the majority, therefore postponing early use of substances. There is urgent need to develop and implement interventions that focus on low moderate and high-risk users to mitigate the potential risk of developing substance use disorders. The high prevalence of substance use and the low utilization of counselling services in Kenyan universities calls for urgent action. Universities should strive to provide accommodation for students and strengthen counselling by hiring adequate staff and seeking innovative ways of encouraging students to seek counselling services.

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