

## **Initiation and Prevalence of Substance Use and Abuse among University Students in Uganda.**

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### **Abstract**

Substance use has become a significant challenge among students at universities and colleges resulting in delay or failure to complete studies due to addiction. This study sought to investigate the nature of the initiation of university students into substance use and the prevalence of substance use among them. A cross-sectional baseline survey was utilized, with a sample of 347 students selected from all the major student residencies of Uganda Christian University. Initiation into substance use was found to occur mainly in adolescence and before students join the university (12-19 years). Initiation is facilitated mainly by peers and prompted by curiosity, experimentation, and a need to reduce stress and find relaxation. Substance use is maintained because the users come to enjoy the after effects of use and continue to seek relaxation and stress reduction. Lifetime prevalence of smoking was reported at 13.3% (n=38) and 29.7% (n=78) for alcohol. Use during the 30 days prior to the study was reported at 24.7% (n=21) for those who acknowledged smoking and 62% (n=62) of those who acknowledged alcohol use. Users were found to be mainly full-time, undergraduates living both on and off campus especially in hostels not affiliated to the university. Users were distributed throughout the third, second and first years of study. Binge drinking and use during the preceding 30 days was not remarkable. These may, however, not be the most effective indicators for at-risk or problem drinking within this population. Considering the number of “problem cases” and anecdotal evidence on the magnitude of the problem of substance use on campus and its impact on students, the reported figures for substance use appear to be lower than the actual. Further research is therefore recommended with a larger sample with a focus specifically on those who acknowledge use. Prevention and intervention activities are also recommended with prevention activities targeting pre-university students.

*Key words:* substance use, initiation, prevalence, university students, alcohol use, tobacco use, marijuana use,

## **Introduction and Background**

Substance use and abuse and in particular, alcohol, tobacco and marijuana abuse is a significant problem among young people in Uganda. This is evident among university students, with students failing to complete courses of study, failing to submit assignments, missing classes and exams because of the use and abuse of substances, and related challenges. Many universities acknowledge the challenge that substance use and abuse pose but are unable to accurately estimate how widespread the problem is among their students, and thus find it difficult to allocate adequate funds and human resource to address the problem. Accurate information concerning the age of users at initiation, the nature of initiation, and the individuals who initiated them into use, inform prevention activities for greater effectiveness.

Most undergraduate students can be characterized as young adults, between the ages of 20 and 30. The period of young adulthood is described as “an age of identity exploration, instability, and of feeling in-between” (Arnett; as cited in Nichter et al., 2006). This is often the age at which experimentation in various behaviors including alcohol and other substances occurs. Dworkin (2005) stated that experimentation is a constructive component of identity formation. Considered from Dworkin’s perspective, initiation into substance use could be viewed as appropriate experimentation. However, among the behaviors with which adolescents experiment, substance use could have devastating consequences.

All users of substances were once non-users. Those who initiate university students into substance use include family members, peers at the university, acquaintances, and peers, earlier on in life. Some users report that their own curiosity led them to experiment with substances with no specific initiator. However, attempts to prevent substance use cannot be successful unless the process and actors in initiation are given full consideration. University students are at the age when peer influence is quite significant among other factors.

Tsering and Pal (2009) in a study investigating the role of family and peers in initiation and continuation of substance use found that peer and family influence were the most important factors in initiation in substance use among adolescents. Considering the family influence, siblings have been noted as a major influence in drug use initiation. Neiderhiser, Marceau, and Reiss (2013) stated that having a deviant sibling increases the chances of a sibling’s

externalizing behavior including initiation of substance use. They further stated that marital conflict, sibling negativity, and peer group delinquency are other factors associated with initiation of drug use.

Concerning peer influence, it has been observed that perceived peer use or the belief that peers were using substances had an impact in substance use initiation. D'Amico and McCarthy (2006) found that among adolescents, perceived peer use of alcohol was associated with initiation of alcohol use, and perceived peer use of both alcohol and marijuana predicted the onset of the use of marijuana. Beyond peers, the community appeared to have an effect as well, on initiation of substance use. DeHaan and Boljevac's (2010) study found that community supportiveness and controls against drinking reduced both the decision to try alcohol and past month use among early adolescents.

The most common substances of abuse in Uganda are alcohol, tobacco and marijuana. Bowen-Reid and Rhodes (2003) stated that marijuana is used by about 75% of illicit drug users in the USA. When adolescents move out of their parents' homes and leave boarding schools and go on to live in university housing, monitoring from parents and school authorities decreases. For students who are already using substances, substance use likely increases. In addition, students that use substances are more likely to establish and maintain relationships with peers who also use and abuse substances (Kobus, as cited in Nichter et al., 2006). Also, Benz et al. (2017) found that living off campus, either independently or with peers is a risk factor for heavy drinking and negative consequences of alcohol use. In their study, Benz et al. found that students living off campus exhibited more risky drinking behavior and alcohol related consequences than students living on-campus, independent of age and class year. Living off campus corresponds with less monitoring of student activities by parents and university authorities.

This study sought to establish the prevalence of substance use and abuse among university students. The study explored the following in relation to prevalence: nature, substance of abuse, duration, frequency of substance use and abuse among students on campus. This study also sought to identify the characteristics of users, and abusers of substances on campus and investigate the sources of substances on campus. In addition, the study sought to establish the initiation of substance use and abuse among university students. It explored the following in relation to initiation: circumstances of initiation into substance use, factors that facilitated initiation, reasons for initiation and characteristics of initiators.

Substance use and abuse by university students has been identified as one of the factors that contributes to non-completion or delayed completion of study by some students, physical injury, loss of property, indiscipline, ill health, diversion of funds designated for fees and various other challenges. These incidences are reported every semester as “problem cases” due to missing coursework or exam marks or absence from class. Such occurrences detract significantly from the university and faculty strategic goal of “Excellence in Education” in both the teaching and learning experience. It is unlikely that efforts that are being made to prevent and intervene in this situation without accurate figures on the prevalence of substance use and abuse university-wide will be effective. This study sought to further clarify the magnitude of the problem. Early intervention, referral to professional help, and support within and outside the university based on prevalence figures are crucial to enable students to address difficulties associated with substance use and abuse. It was expected that these would be informed by the results from this study.

Students who are already heavy users and abusers by the time they get to campus are more likely to have been initiated into substance use as children. It is important to investigate the nature of initiation into substance use in order to be more informed on the most effective focus for prevention strategies. In addition, in keeping with the university research theme of “Children” this would be a significant way of contributing to the well-being of children by identifying initiators in order to combat initiation and provide recommendations that would ensure that children have a more successful future as substance free university students and adults. Students who are not affected by substance use and abuse may have other challenges but they have the opportunity to attend to their studies without the influence of substances. These students are also able to avoid substance use and/ or abuse that could potentially destroy their career and their lives.

Currently public and private universities are under financial stress and administrators are hard pressed to justify why funds should be allocated to planned activities and resources. Substance abuse is a recognized challenge in universities but without accurate numbers on its prevalence and its effect on the universities’ core activities and stakeholders, it is difficult to justify allocation of financial and human resources to combat it. Results from this study will provide an estimate of the prevalence of substance abuse in universities and thus be a baseline for use in activities for intervention and prevention of substance abuse among university students.

## **Methodology**

A cross sectional baseline survey was carried out to investigate initiation of substance use, abuse and prevalence of substance use and abuse among university students. The main survey tool used was a survey form developed by The National Center on Addiction and Substance Abuse, Columbia, NY. It was adapted to suit the purpose. Permission to adapt and use this tool was requested and granted. This tool has been used in a study of substance use and abuse in America's colleges and universities. The tool includes items on prevalence of substance use and abuse. It was pilot tested on 20 recent alumni and students from other universities. The feedback from the pilot study was utilized to modify the tool to better meet the purpose.

The tool consisted of eight sections on various aspects of university life with the focus on substance use and abuse. Section A explored the students' use of their leisure time. Section B consisted of questions on the students' experience of stress. Section C investigated the students' psychological and emotional health. Section D consisted of questions related to smoking; Section D: alcohol, and Section F: other drugs. Section G explored the students' perception on general substance use within the student community and Section H elicited demographic information.

The survey was completed by a sample of university students not limited to year of study or faculty at Uganda Christian University enrolled for study at the man campus during January and April semesters of 2017. Population size was estimated at 7000. Students selected to participate in the study were non-residents and residents of major halls of residence and hostels. Twelve student residencies that had more than 40 participants were purposively selected. Within the residencies and among the non-residents, participants were selected randomly to make up the stratification quota. Participants in the Alcoholics Anonymous and Narcotics Anonymous groups on campus were also included. Participants were 347 in total. Four members of staff and four research assistants were involved in collecting the data. The participants were not required to give identifying information and they were informed that they were free to withdraw from the study at any time. Questionnaires were identified with pre-assigned codes.

Substance abuse is an area that most users and abusers are reluctant to share about because as

they begin to use, they think they can manage it on their own. As abuse intensifies, it attracts stigma and condemnation. It was anticipated that the users and abusers would likely be reluctant to admit that they had a problem. The survey was designed in such a way that the respondents were requested for information on various areas of student life first then substance use and abuse. These other areas are invariably affected by substance abuse. It was anticipated that this design would put students more at ease than if the whole survey had been focused on the individual's substance use. In addition, the survey instrument was completed by all students randomly selected, and not only those who were identified to be using and abusing. This method also likely eliminated any feelings of stigma that would have resulted from selecting only identified substance users and abusers.

In order to explore the nature of initiation (reasons and circumstances for substance use) information was gathered from the following sections: Section D (Smoking), Section E (Alcohol), Section F (Drugs), and, Section G (General Substance Use Perception). Data was compiled from items which were focused on the individuals who introduced the students to the specific substances, the reasons for and circumstances surrounding initiation, the factors that facilitated initiation and maintenance of substance use and abuse. In addition, these sections provided data on the initiators of substances and the sources of substances on campus. Frequencies and percentages of each of these were computed.

In order to establish the prevalence (nature, substance of abuse, duration, frequency) of substance use and abuse among students on campus, data was compiled from Section D (Smoking), Section E (Alcohol), Section F (Drugs), and, Section G (General Substance Use Perception). Frequencies and percentages of use and abuse were computed. Data on the characteristics of users and abusers of substances on campus were obtained from the demographic sections of the instrument. Quantitative analysis was done using SPSS Version 16.

## **Results**

### **Demographics of the study sample**

Respondents were selected from hostels and student residency halls on campus. Among the respondents, 87.5% (n=224) were full-time students, 10.5% (n= 27) were evening students and 2% (n= 5) were modular students. Regarding educational level, 95.1% (n= 270) of the respondents reported that there were undergraduate students and 4.6% (n=13) were graduate

students. The age of the respondents ranged from 18 years to 26 years and older with 85.5% (n=248) of the respondents in the range of 20 to 24 years, 4.9% (n=16) aged 18 and 19 years, and 9.7% (n=32) aged 25 and above years. Of the respondents who indicated their gender, 49.2% (n=148) were male and a similar number were female.

#### Characteristics of users and abusers of substances on campus

Among the students who acknowledged substance use, 87.3 % (n= 48) were full-time students, 10.9% (n=6) were evening students and 1.8% (n=1) was a modular student. Undergraduate students constituted 98.4% (n=61) of the group and 1.6% (n=1) was a graduate student. First and second year students accounted for 29.8% (n=17) of those who acknowledged substance use, third year students were 36.8% (n=21) of the group and fourth year students were 3.5% (n=2) of the group. The following was the constitution of the sample of those who acknowledged substance use according to age: 19-year-olds 3% (n=2); 20-year-olds were 18.2% (n=12); 21-year-olds were 13.6% (n=9); 22 and 23-year-olds: were 18.2 % (n=12) each, 24-year-olds were 12.1% (n=8); 25-year-olds were 7.6% (n=5); and 26 years and older were 9.1 % (n=6). Male students accounted for 59.4% (n=38) and female students were 39.1% (n=25) of the group.

Respondents who acknowledged using substances were spread out from the different courses as follows: 1-2 for most courses with highest number being Bachelor of Business Administration students with 21.1% of the sample (n=15). Concerning the highest degree that the respondents intended to achieve, 30.8% (n=20) indicated that they intended to achieve a bachelor's degree, 40% (n=26) indicated that they intended to have a master's degree and 24.6% (n=16) indicated that they would pursue a doctorate, 4.6 % (n=3) stated that they did not know the highest level of education they would achieve. On membership in associations, 59.3% (n=35) indicated that they belonged to an association and 40.7% (n=24) indicated that they did not belong to an association.

Concerning the living situation of the respondents who acknowledged using substances, 31.4% (n=22) resided in a campus hall, 12.9% (n=9) resided in a hostel affiliated to campus, 45.7% (n=32) were in a hostel not affiliated to campus, 7.1% (n=5) lived with parents or guardians and 2.9% (n=2) noted other residences. Regarding relationship status, 59.4 % (n=41) were single, 26.1% (n=18) stated that they were in a committed relationship, 7.2% (n=5) stated that they were engaged, 2.9% (n=2) were married, 1.4% (n=1) was separated/divorced, and 2.9% were widowed.

Respondents reported varied tribal backgrounds which were combined to reflect their areas of origin in Uganda. Northern Uganda (Acholi, Alur, Karamjong and Luo) accounted for 10.8% (n=6) of the respondents, Eastern Uganda (Bagisu, Bamasaba, Kunam, Itesot accounted for 19.8% (n=11), Central Uganda (Basoga and Baganda) were 25.2% (n=14) of the respondents, Western Uganda (Bafumbira, Bakiga, Banyankole, Batooro) accounted for 41.4% (n=22) of respondents and international students made up 3.6% (n=2) of the respondents. Regarding religious affiliation of the respondents who acknowledged substance use, 61.2% (n= 38) identified as Anglican/Protestant, 22.6% (n=14) were Catholic, 6.5% (n=4) identified as born again Christians, and Muslim respectively, 3.2% (n=2) identified as Atheists or Heathen. 50% (n=30) of the respondents described themselves as very active religiously, 26.7% (n=16) described themselves as somewhat active, 12.7% (n=9) as a little active and 2.8% (n=2) as not at all active. Parent's work and profession of those who acknowledged using substances was varied with the highest percentage for both mothers and fathers being business.

Nature of initiation

#### *Age at initiation*

Among the respondents who indicated that they smoked, 18.5% (n=5) reported that they started smoking before they were 12 years of age. 63% (n= 17) started smoking between 12 and 19 years of age, and 18.5% (n=5) stated that they started smoking when they were 20 and above.

Among those who indicated that they used alcohol, 13.1% (n=8) indicated that they started drinking below the age of 12 years, and 59% (n=36) reported that they started between the ages of 12 and 19 years. Those who were initiated into alcohol use when they were 20 years and above accounted for 23% (n=14) of the group. 4.9% (n=3) of the group indicated that they did not know when they started using alcohol.

Among the respondents who indicated that they used other drugs, 14.2% (n=2) reported that they were initiated into use of drugs before 12 years of age, 42.9% (n= 6) reported that they started using other drugs between 2 and 19 years, and 20 and above respectively.

Initiators

#### *Smoking*

The most frequently reported initiators of respondents were peers (47.5%, n=19). Fathers and sisters were reported to have initiated 7.5% (n=3) of this group into smoking. Mothers, brothers, family friends, girlfriends and strangers were reported to have initiated 2.5% (n=1); and male relatives and roommates initiated 10% (n=4) into smoking. A sponsor was reported to be the initiator by 5% (n=2) of the respondents.

#### *Alcohol*

In reporting on the individuals who initiated them into alcohol use, 40.2% (n= 33) cited peers; 14.6% (n=12) cited a male relative; 7.3% (n=6) indicated a father; and 6.1% (n=5) said it was a mother and brother. In addition, 3.7% (n=3) indicated that it was a family friend, a female relative, a stranger, a boyfriend, and a sponsor who introduced them to alcohol use. Moreover, 2.4% (n=2) were initiated by a girlfriend and a sister respectively; and 1.2% (n=1) were initiated into alcohol use by a roommate and guardian respectively.

#### *Other drugs*

Among respondents who acknowledged use of other drugs, 44.4% (n=12) indicated that the individuals who initiated them into drug use were their mothers, 11.1% (n=3) reported that they were initiated into drug use by male relatives, sisters and strangers respectively. In addition, 7.4% (n=2) reported that they were initiated by female relatives and peers while 3.7% (n=1) reported that they were initiated by fathers and family friends.

Reasons for initiation into substance use

#### *Smoking*

The reasons respondents gave for initiation into smoking included relaxation or reduction of stress (21.7%, n=10); peer pressure (32.6%, n=15); and curiosity or a desire to experiment (41.3%, n=19), while 4.3% (n=2) indicated that they did not know why they started smoking.

#### *Alcohol*

Among respondents who acknowledged alcohol use, 20.7% (n=17) indicated that they started using alcohol in order to reduce stress or to relax; 17% (n=14) stated that they started because of peer pressure; and 54.8% (n=45) started out of curiosity or a desire to experiment, and 7.3% (n=6) of the group indicated that they did not know why they started drinking.

#### *Other drugs*

Reducing stress or relaxation was given as the reason 8.1% (n=3) of respondents started using

other drugs; 16.2% (n=6) cited peer pressure; and 37.8% (n=14) reported that they started using other drugs out of curiosity and to experiment, while 37.8% (n=14) stated that they did not know why they started using other drugs.

Reasons for continued use

### *Smoking*

Among the respondents who smoked, 29.3% (n=12) stated that they continued to smoke to reduce stress and relax, 19.5% (n=8) noted that they were unable to stop smoking, 17.1% (n=7) reported that they continued to smoke in response to peer pressure, 12.2% (n=5) continued to smoke to experiment and the same percentage stated they did not know why they continued to smoke, while 7.3% (n=3) stated that they continued to smoke in order to diet and control appetite. Likewise, 2.4% (n=1) stated that they continued to smoke to help them focus and concentrate.

### *Alcohol*

The most popular reason for continued use of alcohol, given by 47.4% (n=37) of those who used alcohol, was to reduce stress and relax, Of this group, 29.5% (n=23) stated that they continued to use alcohol for enjoyment, 10.3% (n= 8) continued to use because of social and peer pressure, 6.4% (n= 5) stated that they continued to use because they were unable to stop, 2.6% (n=2) reported that they used in order to get drunk and 3.8% (n= 3) stated that they did not know the reason they continued to use alcohol.

### *Other drugs*

A number of reasons were given by the respondents for their continued use of drugs. Overall, 39.4% (n=13) of this group stated that they continued to use drugs for enjoyment and fun, and the same percentage stated that they continued to use drugs in order to relax or reduce stress, 9.1% (n=3) stated that they used because of peer pressure, 6.1% (n=2) reported that they used in order to get high., while 3% (n=1) used drugs to help them digest their food and the same percentage stated that they did not know why they continued to use drugs.

Prevalence

### *Smoking*

Among the respondents, 13.3% (n=38) indicated that they had ever smoked before, while 84.3% (n=241) had never smoked before. Regarding smoking within the 30 days prior to the study, 24.7% (n=21) of the respondents had smoked and 63.5% (n =54) had not smoked

within the 30 days before the study. Of the 27 respondents who indicated that they smoked, 32.1% (n=9) indicated that they smoked on 1-5 days and 25 or more days, 21.4% (n=6) smoked on 6 – 10 days and 10.7% (n= 3) indicated that they smoked on 11-24 days. Regarding the length of time they had been smoking, 4% (n=1) of those who indicated that they smoked reported that they had been smoking for 1 day, and a similar percentage for 1 month, 1 semester, 2 years, 4 years, 5 years, 7, 8, 10, 12 and 21 years, respectively. 8% (n = 2) reported that they had been smoking for 1 year, 6 years and 15 years respectively. 12% (n= 6) reported that they had been smoking for 3 years. Of the respondents, 4% (n=1) reported that they had been smoking for “not long” and for “many years.”

### *Alcohol*

Of the respondents 29.7% (n=78) reported that they had ever had a drink of alcohol, while 65.4% (n= 172) had never had a drink. Regarding whether they had had a drink within the 30 days prior to the study, 62% (n=62) reported that they had had a drink and 21% (n=21) had not had a drink within the 30 days preceding the study. Of the respondents who acknowledged drinking, 29% (n=20) indicated that they had a drink on 1 day, 27.5% (n=19) had a drink on 2-3 days, 20.3% (n=14) had a drink on 4-5 days, 13% (n= 9) had a drink on 6- 10 days, and 10.1% (n= 7) had a drink on 11 or more days. Regarding the number of drinks they usually drank, 18.6% (n=13) respondents who reported drinking indicated that they usually drank 1 drink, 37.1% (n= 26) took 2-3 drinks, 22.9% (n=16) took 4-5 drinks, 15.7% (n=11) took 6–10 drinks and 5.7% (n=4) reported that they usually had 11 or more drinks.

Regarding binge drinking (drinking more than 5 drinks in one sitting), 35.4% (n=28) reported that they had never done so, 22.8% (n=18) indicated that they had done so 1 time, 21.5% (n= 17) reported that they had done so 2-3 times, 12.7% (n=10) reported that they had done so 4- 5 times, 2.5% (n=2) had done so 6–10 times and 5.1% (n=4) reported that they had done so 11 or more times. Considering how long the respondents had been drinking, 1.8% (n=1) reported that they had been drinking for 20, 18, 17, 16, 11, 9, and 7 years and 1 semester, “since 15”, “since S.6”, and their “entire life.” respectively. 3.6% (n=2) indicated that they had been drinking for 6 and 8 years respectively. 7.2% (n=4) reported that they had been drinking for 5, 10, and “many” years respectively. In addition, 10.8 % (n= 6) reported that they had been drinking for 1 and 2 years respectively, 12.6% (n=7) reported that they had been drinking for 7 years and 18 % (n=10) reported that they had been drinking for 4 years.

### *Other drugs*

Regarding lifetime use of a number of drugs, the following were the results: 5.6% (n=15) acknowledged having used marijuana, 0.4% (n=1) reported having used cocaine, 0.8% (n=2) had used heroin, 5.9% (n=16) had used shisha, 1.5% (n= 4) reported having used khat, 3.3% (n=9) used kuber, 1.5% (n=4) used stimulants, and 2.7% (n=7) reported having used tranquilizers without prescription. Regarding substance use within the 30 days prior to the study, 18.4% (n=9) of the respondents reported using marijuana, 2.3% (n=1) reported using cocaine, 4.4% (n=2) used heroin, 9.8% (n=5) used shisha, 9.3% (n=4) reported using khat, 2.2% (n=1) reported using kuber, 7% (n=3) used stimulants, and 10% (n=4) used tranquilizers. Of the 19 respondents who reported using marijuana, 47.4 % (n=9) of them had used it on 1 day, 26.3% (n=5) used it on 2 days, 10.5% (n=2) used it on 3-5 days, 5.3% (n=1) reported that they used marijuana on 6-10 days and 10.5% reported that they used it on 11 or more days.

*Table 1: Student perceptions of substance use by general student population*

PERCENTAGE USE	0%	1-25%	25 – 50%	51-75%	76 – 100%	Don't know
Regular smoking	2.8	18.5	16.4	10.5	9.1	42.9
Binge drinking (1xmonth)	2.1	18.1	11.8	10.8	12.2	45.1
Marijuana (1xmonth)	4.7	20.8	9.3	7.5	4.7	53
Shisha (1xmonth)	2.8	17	11	12.4	9.5	47.3
Kuber (1xmonth)	6.4	18.4	7.4	6.4	8.2	53.2
PERCENTAGE USE	0%	1-5%	6-10%	11-20%	21 >	DK
Cocaine (1xmonth)	6.8	16.1	7.5	7.1	6.8	55.7
Heroin (1xmonth)	8.3	13.4	7.6	6.5	5.1	59.2
PERCENTAGE USE	0%	1-5%	6-10%	11-50%	51 >	DK
Prescription drugs (1xmonth)	5.2	13.4	10.1	7.8	6	57.5

Results in Table 1 above indicate the respondents' perceptions of the percentage of the

general student population that used cigarettes, alcohol and other drugs. For every category of substances, more respondents stated that they did not know what percentage of the student population used more than any of the other options.

#### Sources of substances on campus

Respondents stated that cigarettes were acquired from shops and friends. Sources of alcohol were varied. Alcohol was acquired from bars, shops, friends, nightclubs, kiosks, outside canteens, supermarkets, homes, parents, Casablanca and Club One.

### **Discussion**

The most frequent age range of initiation into smoking, alcohol and other drugs was 12 to 19 years. This is the age range at which most adolescents are in secondary school. This is consistent with other studies that state that adolescence is the age of experimentation, exploration, self -discovery and peer influence. All these factors come together to make the adolescent susceptible to any efforts by others to introduce the adolescent to substances. CASA (2011) also reported that 90% of Americans who meet the medical criteria for addiction started smoking, drinking or using substances before the age of 18. Uganda Alcohol Policy Association (UAPA, 2014) also found initiation into the age-range of 12–19 years to be the most common in a study of adolescents.

For smoking and alcohol, the most frequently reported initiators were peers. This is consistent with the fact that this is the age of greatest peer influence. Mothers were cited as the most common initiators for other drugs. This was an unexpected finding considering that it would be expected of mothers to make the best decisions for their children. On the other hand, if mothers are using drugs, their children may find it more acceptable to use.

The reasons respondents gave for initiation and continued use for smoking, alcohol and other drugs were largely similar. They cited: curiosity/experimentation, peer pressure, reduction of stress and enjoyment. These are consistent with the average age of the group and their level of development. Concerning the use of substances for stress reduction, Gerstenkorn and Suwala (2003) in a study of national and international medical students, found that substance abuse, including over-consumption of alcohol, has been recognized as one of the prevalent methods of stress reduction amongst this group.

Lifetime prevalence of substance use among this sample was 13.3% for smoking/ cigarettes;

29.7% for alcohol; 5.6% for marijuana and 5.9% for shisha. Almost a quarter of the users acknowledged use in the last 30 days prior to the study: smoking/cigarettes (almost one out of four), alcohol (60%), marijuana (one in five), shisha and tranquilizers respectively (10%), and khat (9%). Concerning the number of days the users had a drink in the last 30 days, respondents indicated that 29% of them had a drink on one day, 27.5% of them had a drink on 2-3 days, and 20.3% had a drink on 4-5 days.

Regarding the number of drinks users consumed in one sitting: about 1 in 5 indicated they consumed 1 drink, about 2 out of 4 consumed 2-3 drinks and close to 1 out of 4 had 4-5 drinks. Also, 16% of this group indicated that they consumed 6-10 drinks, and not more than 6% took 11 or more drinks in one sitting. Binge drinking did not appear to be a serious problem among the respondents. Even though respondents may experience negative consequences from at-risk drinking, it was not reported primarily as binge drinking. Moorhouse et al. (2014) stated that the risky drinking indicators that mainly use frequency, quality and duration of drinking, may not adequately identify individuals who are at-risk drinkers. They suggested that new methods that include indicators of new drinking behaviors may need to be used to identify students who are at risk. This study utilized mainly indicators of frequency and duration so the gravity of at-risk drinking situation may not be fully reflected.

#### Users

Among respondents who acknowledged the use of substances, 87.3% were full-time students, 98.4% were undergraduates who included more third years (36.8%) than 1<sup>st</sup> and 2<sup>nd</sup> years respectively (29.8%). The majority of this group were 20-23 years old (68.2%) and the majority of them were male (63%). Regarding the living situation, more of them were from hostels not affiliated with campus (45%) than from campus residencies (31%). A majority of them were single (59.4%). The majority of this group identified as Protestant/Anglican (61.3%) and Catholics (45%) and 52.6% identified as very active religiously.

#### Sources/perceptions

Respondents reported that they had easy access to alcohol and cigarettes around the campus. No availability inside campus was reported. On reporting their perceptions on substance use by fellow university students, most respondents reported that they did not know what percentage of their fellow students may be using cigarettes, alcohol and other drugs at least

once a day. This response may reflect “presuming innocence” with some consciously denying any substance use on campus. On the other hand, this may indicate that these students actually did not have any idea of substance abuse on campus. This may be an example of “halo bias” with their overall positive impression of the university as a Christian institution overshadowing the fact that there could be a substance use problem.

## **Conclusion**

Initiation into substance use was found to occur mainly in adolescence and before students joined the university (12-19 years). Initiation was facilitated mainly by peers and prompted by curiosity, experimentation, and a need to reduce stress and find relaxation. Substance use was maintained because the users came to enjoy the after effects of use and continued to seek relaxation and stress reduction.

Lifetime prevalence of smoking was reported at 13.3% (n=38) and 29.7% (n=78) for alcohol. Use during the 30 days prior to the study was reported at 24.7% (n=21) for those who acknowledged smoking and 62% (n=62) among those who acknowledged alcohol use. Considering the number of “problem cases” and anecdotal evidence on the magnitude of the problem of substance use on campus and its impact on students, the reported figures for substance use appeared to be lower than the actual. Users were found to be mainly full-time, undergraduate and living both on and off campus especially in hostels not affiliated to the university. Users were distributed throughout the third, second and first years of study. Binge drinking and use during the preceding 30 days before the study was not remarkable. These may not be the most effective indicators for at-risk or problem drinking within this population.

Further research with a larger sample may yield more information on actual figures of at-risk and problem use within this population. Research targeting users may provide a more accurate view of the magnitude of the problem specifically for those who are using in hiding. Prevention activities can be developed to target students before they join campus. These would target church founded schools for which access may be easier, and also churches, government and private schools through community outreaches. Prevention activities could also be conducted on campus focusing on life skills and in particular: handling stress, relaxation, the appropriate use of leisure and handling peer pressure. These were cited as some of the major reasons individuals initiate and continue to use substances.

Intervention and management programs for those who are already using should be developed, spearheaded by the Counselling Departments, the office of the Director of Student Affairs (DOSA), Medical Services and the faculties, departments, and residences. Hostel and campus residences may need to put into place more stringent guidelines that will further limit access to and use of substances on the premises. University policies on substance use and abuse, and the process of handling affected students may need to be further clarified and more widely disseminated in order to reduce the stigma attached to seeking treatment.

## References

- Benz, M. B., DiBello, M. A., Balestrieri, S. G., Miller, M. B., Merrill, J. E., Lowery, A. D., ... Carey, K. B. (2017). Off-campus residence as a risk factor for heavy drinking among college students. *Substance Use & Misuse, 0*(0), 1-6.  
doi:10.1080/10826084.2017.1298620
- Bowen-Reid, T. L., & Rhodes, W. L. (2003). Assessment of marijuana use and psychosocial behaviors at two historically black universities. *Journal of Black Psychology, 29*(4), 429-444. Retrieved at <http://jbp.sagepub.com/cgi/content/abstract/29/4/429>  
DOI: 10.1177/0095798403256893
- CASA (2011). Adolescent substance use: America's Number 1 public health problem. Retrieved from <https://www.centeronaddiction.org/addiction-research/reports/adolescent-substance-use-america%E2%80%99s-1-public-health-problem>
- D'Amico, E. J., & McCarthy, D. M. (2006). Escalation and initiation of younger adolescents' substance use: The impact of perceived peer use. *Journal of Adolescent Health, 39*, 281-287. doi:10.1016/j.jadohealth.2006.02.010
- DeHaan, L., & Boljevac, T. (2010). Alcohol prevalence and attitudes among adults and adolescents: Their relation to early adolescent alcohol use in rural communities. *Journal of Child & Adolescent Substance Abuse, 19*(3), 223-243. doi: 10.1080/1067828X.2010.488960
- Dworkin, J. (2005). Risk taking as developmentally appropriate experimentation for college students. *Journal of Adolescent Research, 20*(2), 219 -241.  
doi:10.1177/0743558404273073
- Gerstenkorn, A., & Suwala, M. (2003). Alcohol use by future physicians: Medical and social problem. *Wiadomosci Lekarskie, 56*, 402-406. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15049202>
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Miech, R. A. (2016). *Monitoring the Future national survey results on drug use, 1975-2015: Volume II, college students and adults ages 19-55*. Ann Arbor: Institute for Social Research, The University of Michigan
- Moorhouse, M. D., Soule, E. K., Hinson, W. P., & Barnett, T. E. (2014). Assessing alcohol use in college: Is it time for a new approach to identify risky drinking behavior? *Journal of Substance Use, 19*(3), 262-267. doi:10.3109/14659891.2013.790495
- Neiderhiser, J. M., Marceau, K., & Reiss, D. (2013). Four factors for the initiation of substance use by young adulthood: A 10-year follow-up twin and sibling study of marital conflict, monitoring, siblings, and peers. *Development and Psychopathology, 25*(1), 133-149. Retrieved from doi:10.1017/S0954579412000958
- Nichter, M., Nichter, M., Lloyd-Richardson, E. E., Flaherty, B., Carkoglu, A., & Taylor, N. (2006). Gendered dimensions of smoking among college students. *Journal of*

*Adolescent Research*, 21(3), 215 - 243. Retrieved at  
<http://jar.sagepub.com/cgi/content/abstract/21/3/215>  
doi: 10.1177/0743558406287400

Tsering, D., & Pal, R. (2009). Role of family and peers in initiation and continuation of substance use. *Indian Journal of Psychological Medicine*, 21(31), 30–34. Retrieved from <http://www.ijpm.info/text.asp?2009/31/1/30/53312>

Uganda Alcohol Policy Alliance. (2014). Underage alcohol consumption in Uganda. Retrieved from <https://www.uydel.org/programmes.php?page7>