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Factors Associated With Alcohol Use Among Medical Students at Ridgeway Campus, University of Zambia

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Abstract

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Background: Alcohol use among students has been found to be significantly associated with suicide ideation, physical fighting, and poor academic performance. Consequently, the regular use of alcohol during the adolescence and early adulthood stage can be seen as a risk factor or an indicator of possible future health and social problems. The aim of this study was to determine the factors associated with alcohol use among medical students at Ridgeway campus.

Methodology: The study enrolled 259 medical students at Ridgeway campus who completed an anonymous, self-applied questionnaire. SPSS version 20 was used to verify the correlation between alcohol use and variables. The significance level was set at 95% ($p>0.05$) interval.

Results: Alcohol consumption was 60%. Year of the study was related to alcohol use. Additionally, other related factors were boredom ($p<0.001$), forget problems ($p=0.001$) and improvement of academic performance ($p=0.018$).

Conclusion: The results obtained are useful for developing strategies for alcohol prevention among this population. Training with tips on how to deal with stress, early detection of alcohol use, provision of scientific information, programs for professors/tutors and others and an increase in the time dedicated to disciplines that discuss alcohol use.

Keywords: *Alcohol use, Medical students, ridgeway campus, university of Zambia*

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Introduction

Worldwide, excessive alcohol use is a serious risk factor for adverse health outcomes [1]. WHO estimates in 2002 reported that there are considerable variations in the recorded adult per-capita alcohol consumption between African countries. Owing to the variations in the recorded adult per-capita alcohol consumption in African countries, a study done by WHO's Global Alcohol Database for the year 2000 showed that in Malawi the estimated amount of pure ethanol consumed per adult was 1.38 liters, which was lower than in South Africa, Zimbabwe, Zambia and Kenya (11.51, 3.91, 2.92, and 1.61 liters, respectively) but higher than in Mozambique (0.56 liters). Another study by WHO in 2004 revealed that more than one in every three Zambian adolescents have drunk alcohol, and Uganda has been noted as having the highest alcohol per capita consumption in the world [2].

Many studies around the globe relate alcohol consumption to social vices such as negligence, failure to provide for one's family, gender-based violence and absenteeism from work. In Africa, alcohol use has been found to be associated with road traffic crashes, unprotected sex [3], [4], [5], [6], and mental disorders. To exacerbate the conditions, heavy episodic drinking is prevalent among young adults in several African countries, with Zambia being no exception [7].

Alcohol use and risky sexual behaviors are linked to drinking venues and alcohol-serving establishments, sexual coercion, and poverty. This is according to a study on alcohol use in Africa done by Kalichman *et al.,* [6]. The risk of alcohol use among youth in low-income countries, Zambia inclusive, is a vital public health concern. Alcohol use among youth has been found to be significantly associated with suicide ideation and physical fighting [8]. Consequently, it is safe to conclude with these findings that alcohol use is a pressing public health issue in Africa that is linked to other health-risk behaviors and adverse outcomes [9],[10].

Consequently, the regular use of alcohol during the adolescence and early adulthood stage can be seen as a risk factor or an indicator of possible future health and social problems. This adds a burden on a country in terms of productivity and income generation. It is for this reason that a concerted effort is needed to try and find workable prevention and intervention solutions to this problem. This can be easily done through the initial identification of the factors that contribute to alcohol use among students.

Materials and Methods

This was a descriptive cross-sectional study design conducted at Ridgeway campus of the University of Zambia. Ethical approval was obtained from ERES Converge. The simple random sampling method was used to sample out the students.

A sample of 259 students of a total of 734 medical students was enrolled in the study. Students responded to the questionnaire after filling out a consent form and receiving information about the research and instructions for its completion. No data was lost.

The sociodemographic variables included: Year of study, sex, age (in years) and marital status. Data collected were analysed using SPSS version 20. Chi-squared test was used to determine the relationship between gender and year of study with alcohol consumption.

Results

Prevalence of Alcohol Use among Students

Figure 1, gives information about the prevalence of alcohol use among students. Of the total 259 medical students, most of the medical students 60 % (n=155) drink alcohol and 45 % (n=117) of medical students have drunk alcohol in the past 6 months (figure 1). It was observed that 4th years medical students recorded the highest alcohol consumption rate 17% (n=44). Among the medical students who drink the alcoholic beverage, 32.4% (n=84) agreed to drink alcohol in a month on 1-5 days. And 28.2% (n=73) of the medical students who drink alcohol, take at least 1-2 alcoholic beverage a day.

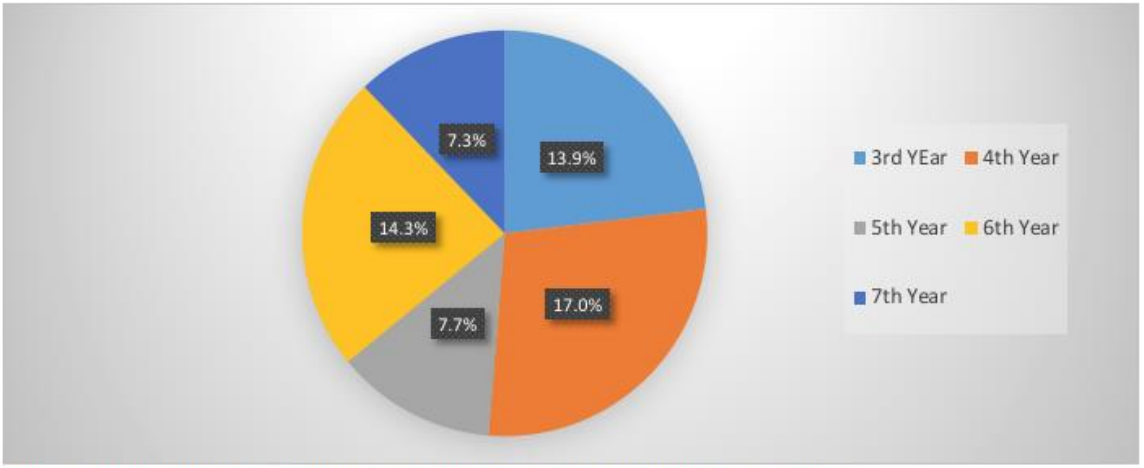

Figure 1: Demonstrates the prevalence of alcohol use in the different year of student

Perceived Social Factors

Table 1 shows the perceived social factors of alcohol use among the medical students. Out of the total 259 medical students, the majority 60.2% (n=156) agreed that they drunk because others were drinking. Majority of the participants who were males 59.8% (n=155) agreed that they drink alcohol in order to have the courage to propose love to girls. With regards to boredom, the highest number 51.7% (n=134) agreed that they take alcohol when they are bored. A proportion of 35.5% (n=92) accepted that they took alcohol just to taste what it takes like.

Table 1. Demonstrates the perceived socio-demographic factors of alcohol consumption among students

Statements	YES		NO	
	n	(%)	n	(%)
1. It is okay for any medical student regardless of their age to take alcohol	95	(36.7)	164	(63.3)
2. You can drink alcohol in order to socialize	113	(43.6)	146	(56.4)
3. You can drink alcohol in order to forget your problems	72	(27.8)	187	(72.2)
4. You can take alcohol when you are disappointed by your boy or girlfriend	99	(38.2)	160	(61.8)
5. Some male students drink alcohol in order to have courage to propose love to girls	155	(59.8)	104	(40.2)
6. I drink alcohol just to have fun with my friends	129	(49.8)	130	(50.2)
7. I cannot refuse to take alcohol when it is given to me	72	(27.8)	187	(72.2)
8. You can drink alcohol for medical reasons	121	(46.7)	138	(53.3)
9. You can drink alcohol to improve your academic performance	54	(20.8)	205	(79.2)
10. You can drink alcohol to improve your performance in sports	30	(11.6)	229	(88.4)
11. You can drink alcohol in order to dance well during entertainment	106	(40.9)	153	(59.1)
12. You can drink alcohol when courses are becoming difficult for you	70	(27)	189	(73)
13. You take alcohol when you have lost your parents	72	(27.8)	187	(72.2)
14. You can drink alcohol in order to be popular among friends	64	(24.7)	195	(75.3)
15. You can take alcohol just to taste how it feels	167	(64.5)	92	(35.5)
16. You can take alcohol when you are bored	134	(51.7)	125	(48.3)
17. Alcohol does not change someone's thinking. Those who misbehave do so	107	(41.3)	152	(58.7)
18. because that is how they are even when they are not drunk	65	(25.1)	194	(74.9)
19. If others drink alcohol then I can also drink	156	(60.2)	103	(39.8)
20. It is very easy to control your own drinking habits.	64	(24.7)	195	(75.3)

Differences in The Perceived Social Factors by Gender and Year of Study

Table 2 shows, the result of inferential statistics via Chi--square test; indicated no significant difference in perceived social factors by gender for all 20 items of the perceived social factors in the questionnaire. However, out of the 20 items of the perceived social factors in the questionnaire, only item 2 that shows an insignificant difference in the perceived social factors by year of study. Significantly higher rates of agreement with statements on perceived social factors that make the medical students drink alcoholic beverage were observed in 3rd, 4th, and 6th-year medical students compared to 5th and 7th-year medical students.

Table 2: Results of chi-square test for statistically significant differences in responses to statements on perceived social factors by medical students' year of study

Year of study	Yes	No	P-value
Statement: You can drink alcohol in order to forget your problems			
3 th year	16	48	
4 th year	27	34	
5 th year	10	36	
6 th year	16	30	
7 th year	3	39	0.001*
Statement: You can drink alcohol to improve your academic performance			
3 th year	7	57	
4 th year	15	46	
5 th year	6	40	
6 th year	11	35	
7 th year	15	27	0.018*
Statement: You can drink alcohol to improve your performance in sports			
3 th year	5	59	
4 th year	3	58	
5 th year	3	43	
6 th year	2	44	
7 th year	17	25	P<0.00*
Statement: You take alcohol when you have lost your parents			
3 th year	8	56	
4 th year	25	36	
5 th year	6	40	
6 th year	15	31	
7 th year	18	24	P<0.00*
Statement: You can take alcohol when you are bored			
3 th year	23	41	
4 th year	34	27	
5 th year	18	28	
6 th year	24	22	
7 th year	35	7	P<0.00*

Discussion

The study set out to find out the proportion of University of Zambia students on Ridgeway campus who consume alcoholic beverages. It also sought to identify some of the social- demographic factors perceived by medical students as causes of alcohol use among students and the characteristics of the students who use alcohol.

A total of 259 students from 3rd-7th years of study were recruited for this study. The majority were males in the study, representing an unfair distribution of respondents according to sex.

The current study also found that the age group with the highest alcohol consumption prevalence was 18-24 years old. It also showed that the sample size decreased with increasing age. The findings of this study also agree with the findings of GSS et al.[11], [12] in terms of

the decrease in sample size with increasing age. This could be due to the fact that the University students, especially undergraduates fall mostly into a particular age group and only a small proportion of them are above the age of 25. Other studies by Gupta et al [13] also showed a reduction in the number of participants when they did a study on alcohol consumption among middle-aged men in India.

The prevalence of current consumption of alcohol was slightly high. Meanwhile, alcohol consumption in less than 6 months was reported slightly lower. These prevalence estimates are lower than those reported in Cameroon (Health of Populations in Transition Research Group, 2004) of 85% overall, but comparable to alcohol consumption rate of 39.6% in the past 12 months in Eritrea [14]. In Nauru, alcohol consumption in the past 12 months was reported by 46.2% respondents.

Among the Ridgeway students, 40% were lifetime abstainers and had never consumed any alcoholic beverage. This matched the World Health Survey [15] which reported that an estimated 45% of the adult population had never consumed alcohol. Oti et al. [16] also found a similar estimate of 44.4% lifetime abstainers. This came as no surprise as the student population is made up of predominantly adults who have their independence and can purchase and consume alcohol on their own without restriction.

The current study also reported that students also perceived that students drink alcohol in order to have the courage to propose love to girls. The reasons given for alcohol use concur with what other studies have shown on how stressful life events are associated with student ‘s alcohol use [17], [18]. The study also echoed that boredom was perceived to be related to the frequency of drinking alcohol among students. Similar studies were done by Brennan et al. [19] support the current study that loneliness, frustration, depression all associated with boredom are related to alcohol use among university students.

The majority of students also admitted that one can take alcohol because others were doing so. The evidence obtained from the current study suggests that peer pressure is one of the perpetuating factors of alcohol use. The evidence given is in support of what was postulated by Wechsler et al. [20] that peer pressure may be responsible for alcohol use by students. However, peer pressure does not operate in a vacuum; there must be a conducive atmosphere for this to happen. For instance, Coggans and McKeller [20], state that a student who associates with peers who have a positive perception about alcohol use is more likely to engage in alcohol use due to peer pressure than one who associates with non-drinkers [21,22].

Conclusions

Alcohol use was common among medical students, indicating a need for strengthening policies to be implemented with the goal of reducing consumption. Students with more free time as well as those subjected to peer pressure should be considered to be at higher risk for alcohol use among this group.

Declaration

Ethics approval and consent to participate

Ethical approval was obtained from University of Zambia Health Sciences Research Ethics Committee. And further on informed consent was obtained from all the participants in the study and they were assured that their identities would be kept confidential, and privacy during the interview was maintained. Permission to record the interview was also sought from them and the purpose of recording was explained. And further explanation was done as regards to the benefits of participating in this study as there was no direct benefit to them but the broader benefits of the study was explained and they appreciated.

Consent for publication

Consent for publication was communicated via the consent form.

Availability of data and material

The data for the study is readily available upon request from the authors.

Competing interests

There are no competing interests declared for this study.

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Author’s contributions

Conception and design of the study was done by EMN authors. Data analysis was done by CZ WGJ, DF, JK, AL and JM. The Manuscript was done by all authors. All authors approved the final submission of the manuscript before submission.

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