



Assessment of Problems Associated with Increased Alcohol intake among Youth in Bushenyi District Western Uganda

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ABSTRACT

Uganda is one of the countries with high alcohol consumption and it appears little efforts are made to address the issue. The objectives of this study were to determine prevalence and magnitude of health problems associated with alcohol intake among youth in Bushenyi district, Uganda and outline the relationship between alcohol intake and alcohol related problems among the study group. The method used was descriptive cross-sectional study design; a sample of 384 youth were selected from Bushenyi district to participate in the study. Multi-stage systematic random sampling technique was done and a quantitative questionnaire was used to collect data from the respondents. The study established that alcohol problems were highly prevalent among the youth assessed. High prevalent rates was found in the following problems: Child abuse (11.6%), divorce (16.1%), violence (13.9%), lost jobs (19.1%) and on the health issues, loss of appetite (16.2%). Magnitude of problems was highest among the following; work problems - age 21-26 (7.8%); health related problem - age 21-26 years (9.1%): conflict, highest among single males (6.2%), health problems: singles (8.0%). Finally, brand/strength of alcohol taken: Beer was highest drink taken by (40.2%) of respondents followed by spirit (24%) of respondents. Result revealed that there was significant correlation between alcohol intake and the following problems: Family conflicts, family neglect, antisocial behavior, school/work and health problems. The above data shows significant combination between alcohol intake and alcohol related problems assessed. These findings underscore the need for interventions and strict alcohol controls as an important policy strategy for reducing alcohol use and its awful consequences among vulnerable groups. Therefore, measures are urgently required to curb the anomalies which may include; government increasing alcohol tax which can make alcohol inaccessible to minors, community mobilization and sensitization, awareness on harmful impacts of alcohol intake on lives and contribution to wasting generation.

Keywords: Alcohol, Child abuse, Prevalence, Family, Uganda

INTRODUCTION

Alcohol (ethanol, or ethyl alcohol), is colorless, volatile inflammable liquid especially used as the intoxicant in wine, beer, spirit, etc and as a solvent, fuel etc. Alcohol is produced by fermentation process in which sugar is converted to ethanol [1]. The use of alcohol can be traced back to the Neolithic age [2]. Beer and wine are known to have been used around 6400B.C. Middle age alchemist believed that alcohol was the answer to all of their ailments and the word "Whiskey" meaning "water of life" became widely known [3]. The deliberate creation of drinkable alcohol is thought to be dated back roughly ten thousand years, and most of the ancient world was very familiar with alcoholic drinks [4]. The global burden related to alcohol consumption both in terms of morbidity and mortality is considerable. Alcohol consumption causes 3.2% of deaths (1.8 million people) and 4.0% of Disability Adjusted Life Years [5]. The World Health Organization estimated that about 2 billion people worldwide consumes alcohol of which approximately 76.3 million have a diagnosable alcohol use disorder, such as excessive drinking and alcohol dependence [6]. Worldwide, adults (age 15 years and older) consume an average 6.2 liters of pure alcohol from beer, wine and spirits each year [7]. Abuse of alcohol, including binge and underage drinking, is the third leading preventable causes of death in the United States [6]. On average for each death due to alcohol; an individual's life is cut short by 30 years, and the wide spread excessive chronic alcohol consumption was named as a disease and an addiction [8]. As it is well known, the consumption of alcohol and other drugs has serious consequences on health, with special relevance to adolescence, a stage during which individuals develop their habits of life and consumption [9]. Drug and alcohol abuse undermines motivation, interferes with cognitive processes, contributes to mood disorders and increases the risk of accidental injury or death [10]. The abuse of these substances can also imply a significant loss of the individual's human capital, thereby reducing the possibility

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of higher personal earnings [11]. Moreover, alcohol abuse in adolescents may predict antisocial behaviors and alcohol-related problems in adulthood [12]. The protracted economic crisis that has affected most countries in Sub Sahara- Africa (SSA) has had a profoundly negative impact on the wellbeing of the entire population in the region [13]. Youth are affected by alcohol consumption and are vulnerable to the subsequent effects of the consumption of alcohol by their peers, parents, and community [14].

In Africa, the patchy research conducted among secondary school students in Zimbabwe in 1990, showed that substance abuse is quite prevalent with 45% alcohol abuse [15]. Alcohol use and abuse by students in Kenya, was found to be wide spread, on the increase and therefore the most frequently (68.8%) used substance among the study population [16]. In a study done by (Kigozi, 1994) revealed that 10% of the patients in Butabika National Mental Hospital of Uganda had alcohol/drug related conditions [17]. In another study done in 14 districts of Uganda, Adjumani, Apac, Arua, K. aberamaido. Kapchorwa, Katakwi, Lira, Moyo, Nebbi, Soroti, Yumbe, Bushenyi, Bugiri and Mubende, the mean prevalence of alcohol abuse for the study was 17.4%, with the least affected district being Yumbe (7.1%) and Bushenyi (9.8%) and the worst affected districts were Apac (25.4%) and Moyo (20.3%) [18]. Studies have documented that heavy alcohol use in adolescence is associated with lower enrolment in post-secondary education, reduced earnings and heightened job instability in young adulthood [19]. Heavy alcohol increases the likelihood of motor vehicle accidents, physical and mental health problems and violence. The likelihood of injury criminal justice involvement and adjustment problems among heavy drinkers jeopardize their lives [20]. Bushenyi district health sector report 2012 said among others, that there was increasing trends in cases of domestic violence, child neglect and abandonment resulting from increased alcohol abuse. Uganda lacks a clear alcohol policy. There is no law to regulate alcohol producers to prevent unfair advertising practices [21]. Most advertising revenue in both print and electronic media and support to sports comes from the breweries [22]. Alcohol addiction is common especially among the youth. Youth prefer strong alcohol spirit like royal gin, signature, vodka, Beckam and Tyson Yvaragi which are easily sold at low price [23]. Health experts believe that that drug use in Uganda is on the increase being propagated as trendy amongst the youth and corporate. However, these drugs bear negative health effects which most users are ignorant of. Alcohol and drug users display signs of increased alertness, excitements, energy, talkativeness, increased loss of appetite and difficulty in sleeping [24].

MATERIALS AND METHODS

Study Design

This was a descriptive cross-sectional study designed to establish the problems associated with alcohol consumption among age 15 - 29 years in Bushenyi district, Uganda. Quantitative survey was carried out using self-administered semi-structured and closed-ended questionnaires to obtain information on demography, socio-economy, health related problems and other relevant information from recruited respondent's living in Bushenyi district Uganda

Study Area Population Size

Bushenyi District has a population as projected by 2010 of 117,000 and 124,000 males and females respectively totaling to 241,500 people. The population distribution in rural and urban is projected to stand at 89 per cent rural and 11 per cent urban. Importantly though, the urban population is projected to be almost 1:1 male to female ratio. The population density stands at 282 people per square km with a household size of 6.

Study Population

The study was conducted in three Sub-counties of Bushenyi district which comprised of Kakanju, Kyamuhunga and Nyabubare. The respondents for the study were 384; males (285) and females (149) from 384 households. These include male and female aged between 15 and 29 years who were resident in the three sub-counties and were found in households at the time of the survey.

Size Determination

The sample size was calculated using "Fishers formulae, from the population of more than 10,000 people (Fishers et al, 1990).

$$\text{Using } n = \frac{z^2 P Q}{d^2}$$

Where:

n = Minimum population sample size required.

z = standard normal deviation set at 95% confidence interval level corresponding to 1.96.

P = Estimated prevalence (proportion of the targeted population estimated to have alcohol related problems). Estimated at 50% = 0.5. This was put at 50% because the exact prevalence is unknown.

d = Desired precision.

Taking the expected prevalence of alcohol intake at 50% and 5% (0.05) as the degree of error

Hence the sample size was 384.

Statement of Correctness of Sample Size

The calculated sample size was 384 and all the 384 participants took part in the sampling. The sampling procedure selected was multistage systematic random sampling technique.

Multistage Systematic Random Sampling Technique

This sampling method was used to select: sub-counties, parishes, villages and households in Bushenyi district. From the 9 sub-counties in Bushenyi district, 3rd Sub counties were chosen randomly from the 9 Sub-counties in Bushenyi district. The 3 selected sub-counties were made up of 27 parishes. The names of the 27 parishes were listed, after the required sample size has been calculated, every 3rd was selected from a list, 9 parishes were finally selected. Each parish has 9-14 villages; the mean was 12, therefore from each parish 12 villages were chosen and multiply by 9 to make 108 villages. 50% of the 108 villages were randomly selected by ballot, (the names of the villages were rolled on pieces of papers, put in a box, shake together and half of it were picked), therefore 54 villages were chosen for sampling. To get the numbers of households that participated in each village, the sample size 384 was divided by the total numbers of villages (54); which gave us 7.1 and was approximated to 7. Therefore 7 households were sampled from each village. Standing at a strategic area in the village a direction was randomly chosen by spinning a pen and every third 3rd household where the nip of the pen faces were sampled. In the event that the edge of the village was reached before obtaining the sampled size, the spinning of pen was repeated to choose another direction. This process continued in all villages until required sample size was obtained.

Data Collection Instruments

Trained interviewers visited households to interview participants. A structured questionnaire was designed to guide data collection for the individual participants. Open and closed ended questions were prepared in English language, and translated into local language (Ruyankole) by the research assistants for those who did not understand English language.

Viability and Reliability of instruments

The questionnaires were pre-tested in Ishaka township to further refine and standardize them and to check for completeness. After reading through the filled questionnaire adjustment were made accordingly. Pre-testing helped in verifying any ambiguous question that may not have been addressed.

Data Processing

Data was entered into computer, and analyzed using SPSS version 16.0 software package; descriptive statistics was used to estimate the socio-demographic data, prevalence and magnitude of alcohol problems while bivariate analysis obtained from spearman's correlation coefficients was used to test for relationship between alcohol intake and alcohol related problems.

Limitation and delimitation of Study

Language was a barrier; therefore, assistants who understand the local language (Ruyankole) were recruited to participate in the study.

Inclusion criteria

The respondents were youth and young adult between 15 and 29 years, who reside in Bushenyi district in schools or found living in households at the time of data collection

Exclusion criteria

Male and females within age 15-29 years who were previously diagnosed with mental illness were excluded from the study. Those who decline to consent for participation in the study were also excluded.

Ethical Considerations

The study was approved by Ethics and Research Committee of Kampala International University. Permission for data collection in the district was granted by the Chief Administrative officer of Bushenyi district and the Chairperson Bushenyi of Ishaka municipal council. Consent for willingness to participate in the study was obtained from the participants after giving adequate information about the study upon which to base their decision such as the importance of the study, advantages, disadvantages duration and the risks involved. Participants were assured of confidentiality hence no name was used but they were required either Lo sign or thumb print, all information given by the participants was used for the sake of the study only.

RESULTS

Table 1: Socio-demographic data of all sampled respondents

Variables	Frequency (384)	Percentage (100%)
Sex		
Male	235	61.2%
Female	149	38.8%
Age		
15 – 19	117	30.6%
20 – 24	134	34.8%
25 - 29	133	34.6%
Education		
Secondary	67	19.6%
Tertiary	219	55.7%
Uneducated	98	24.7%
Occupation		
Civil Servant	30	7.8%
Business	30	7.8%
Student	281	73.1%
Unemployed	43	11.2%
Religion		
Catholic	145	37.8%
Protestant	137	35.7%
Muslim	24	6.2%
Others	78	20.3%
Marital status		
Single	186	48.2%
Married	124	32.2%
Widow/widower	15	3.9%
Separated	39	10.1%
Cohabiting	19	5.2%

Table 2: Social problems associated with alcohol

Variable (Social problems)	Frequency	Percentage (%)
Family conflict	18	8.8
Family neglect	17	8.7
Child abuse		11.6
Accidents	16	7.9
Divorce	32	16.1
Antisocial behavior	19	9.6
Violence	28	13.9
School problems encountered	16	8.2
None		15.2
Total	204	100%

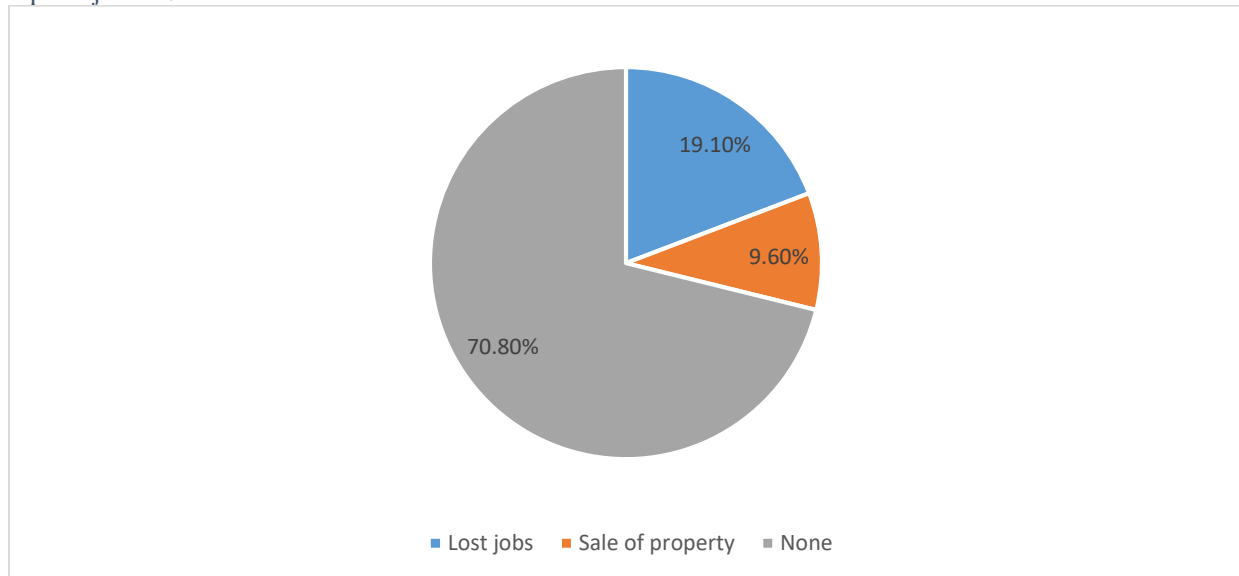


Figure 1: Economic problems associated with increased alcohol intake

Table 3: Health problems associated with increase in alcohol intake

Variable (Health problems)	Frequency = 204	Percentage (100%)
Headache	7	3.2
Depression	4	2.
GIT problems	8	3.8
Trembling feet	8	3.8
Lack of sleep	16	7.8
Loss of appetite	34	16.2
Hangover	9	4.0
None	118	59.2

*Depression was assessed based on respondent's perception

Table 4: Magnitude of age specific alcohol related problems.

Consequences	Age 15-20	Age 21-25	Age 26 - 29 years
Social	25.7%	17.9%	23.0%
Economic	13.8%	6.7%	5.7%
Health	11.7%	5.2%	2.6%

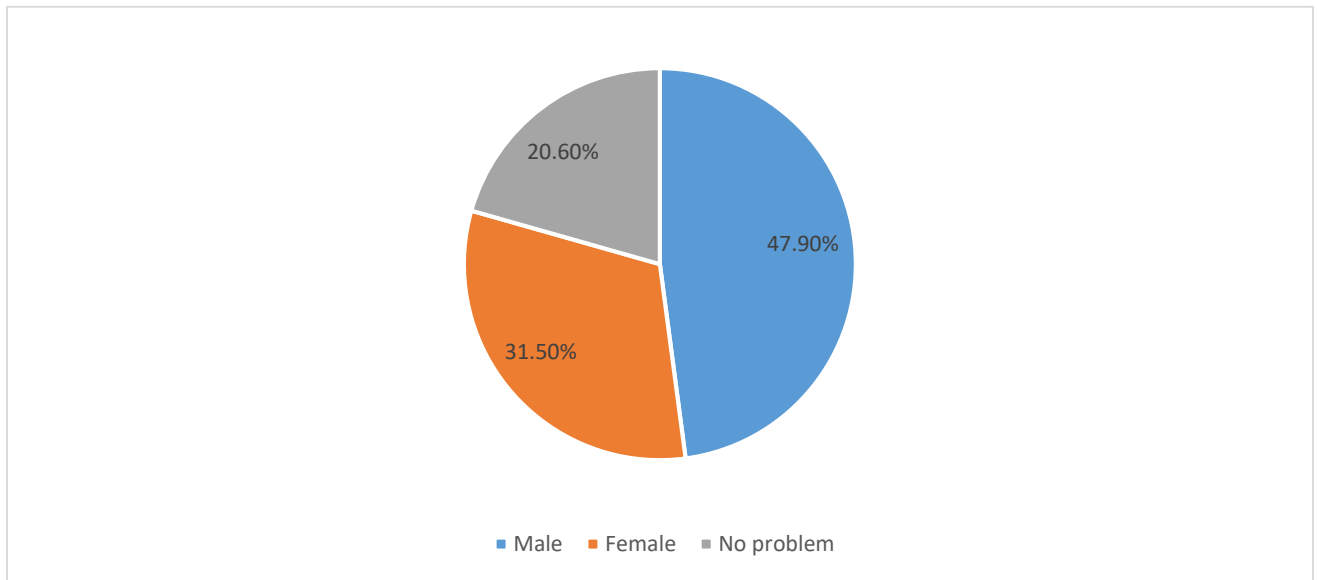


Figure 2: Magnitude of gender specific alcohol related problems

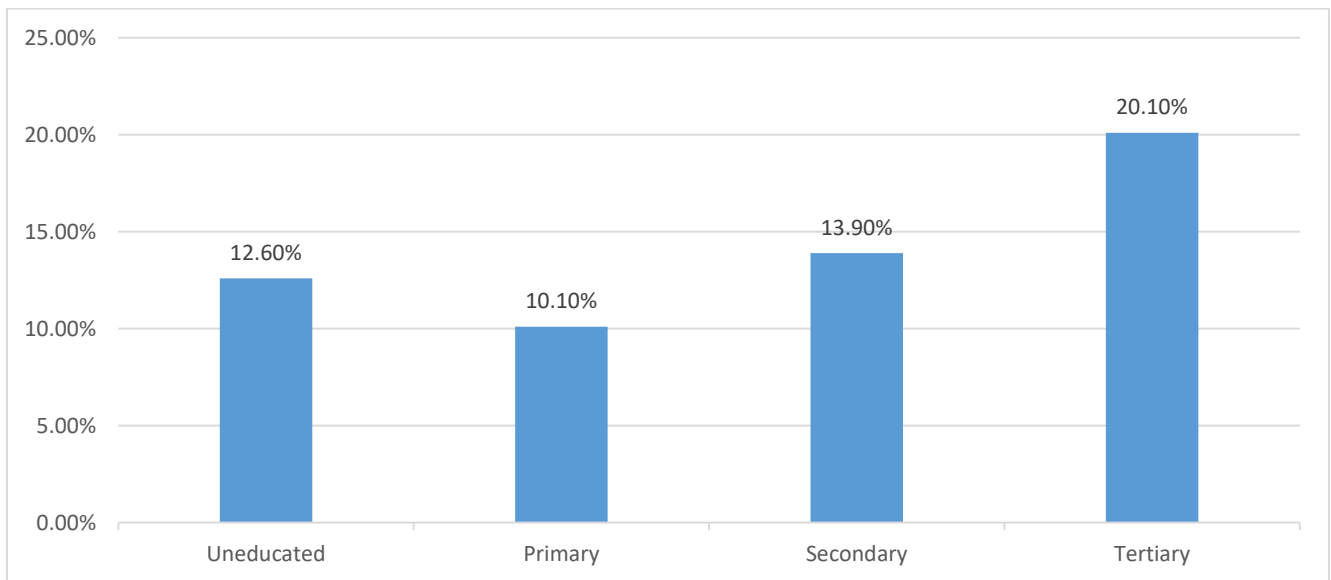
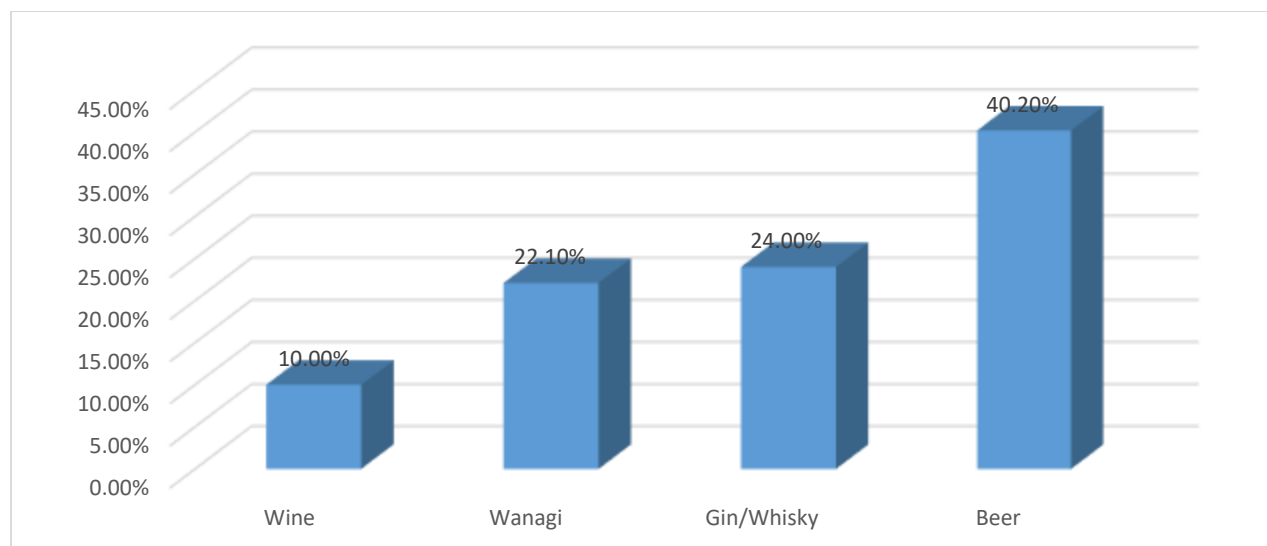


Figure 3: Magnitude of education specific alcohol related problems

Figure 4: Brand of alcohol/Ethanol content of alcohol taken in relation with the magnitude of problems



** . Correlation is significant at the 0.01level(2-tailed).

* . Correlation is significant at the 0.05level(2-tailed).

Table 5: Table below shows that Spearman's correlation coefficient was used to establish the association between alcohol consumption and associated problems.

Independent Variable (IV)	Dependent Variables (DV)	Spearman's Correlation	Coefficient Sig.0.05level (2tailed)
Alcohol intake	Family conflict	.894	Not sig
Alcohol intake	Antisocial behavior	.000**	0.01
Alcohol intake	Divorce / broken relationship	.075	Not sig
Alcohol intake	Child abuse	.985	Not sig
Alcohol intake	Divorce	.494	Not sig
Alcohol intake	Health problems	.020*	00.05
Alcohol intake	Traumatic injuries	.000**	0.01
Alcohol intake	School problems	.843	Not sig
Alcohol intake	Work problems	.013	0.05

DISCUSSION

This study confirmed that alcohol increases the odds of alcohol-related problems among the study group. A total of 384 (100%); male (61.2%) and female (38.8%) aged 15-29 years in Bushenyi district were sampled but only 204 (54%) respondents, responded positively to have been involved in alcohol consumption while (46%) said no to alcohol consumption as shown in fig.2. Table 1 showed Majority of the respondents were males (61.2 %), while their female counterparts were (38.8%), most of them were aged between 20-24years old, majority (50.7%) were from tertiary institution of higher learning, occupation wise majority were students; as far as religion is concerned, majority were catholic (37.8%) and finally marital status indicated Singles (48.2%) as the majority. The findings showed that violence has a high percentage (13.9%) prevalence as shown in table 2, which indicated that alcohol predisposes its victim to unexpected dangers. Alcohol-related violence in bars and clubs is often reactive, may be triggered by events such as a spitted drink or an advance by one person towards another's sexual partner [25]. Violence may occur as a result of argument over an irrelevant subject leading to property damage and vandalism. For victims, alcohol-related violence could result in physical injuries [26]. These findings showed the prevalence of divorce among respondents: (16.1%) respondents agreed to have divorced or separate from their spouses.

Excessive intake of alcohol could also lead to divorce, affecting the partners, who have to go through emotionally traumatic experiences and adjustments, which could be social, economic and sexual, as well as children, who might have difficulty in dealing with divorce [27, 28]. This study also revealed the prevalence of child abuse was (11.6%). Children of alcoholics are exposed to a lot of abuse, ranging from emotional abuse to sexual abuse. In this study, battering was the highest of the type of abuse discovered. Children in homes where one or both parents drinks alcohol are liable to physical and psychological abuse, such as battering, sexual abuse, abandonment, varying emotional torture and lack of affection [29]. When parental judgment is impaired under the influence of alcohol, children are at risk of suffering both intermittent and chronic neglect [30]. This study revealed that the prevalence of accident rate among respondents was (7.9%). Alcohol consumers are prone to different types of accidents, ranging from road traffic accident, falls, fires, injuries related to sports and recreational activities, self-inflicted injuries or injuries resulting from interpersonal violence [20]. The prevalence of school problems encountered was (8.2%). Those who engaged in alcohol are always having academic problems because of the adverse effect of alcohol on the brain and their personality [31]. Studies maintain that alcohol and drugs are factors which interfere in the cognitive capacity of the students, and in their attitudes at school, with these being powerful indicators for low educational attainment, school absenteeism and dropping out of school [32]. Family conflicts has a prevalent rate of (8.8%) among the respondents. Alcohol is a trigger of violence and assault, therefore when a man or woman in the home indulges in alcohol; peace has eluded that family because frequent quarrels are bound to occur [33]. Antisocial behaviors include conduct intended to injure people or damage property, illegal behavior and defiance of generally accepted rules and authority, such as truancy from school [34]. This study revealed the prevalence of antisocial behavior (9.6%) among the respondents when age and sex was used concurrently. These antisocial behaviors exist along a severity continuum. This study showed the prevalence of economic problems such as work place problems; family neglect (8.5%) within age group and sex of participants, lost jobs (19.1%), and sale of properties (9.6%) within age group and sexes of respondents were observed. When one member abuses alcohol, the family becomes destabilized or the balance is affected. Money that should be used for the family is misused on alcohol and this could contribute to violence and poverty [35]. Most individuals with severe alcohol dependency find it difficult to reduce their expenditures, tends to dispose- their properties in other to secure money to spend on alcohol and hence their families often do without essential necessities [36].

The study analysis revealed the prevalence of health problems among respondents which include headache (3.2%), depression (2.0%), high risk sex (3.8%), GIT problems (3.8%), lack of sleep (7.8%), loss of appetite (16.2%), and hangover (4.0%). This was in line with [37] who reiterated that over time, excessive alcohol use can lead to the development of chronic diseases, neurological impairments and social problems. In general, the risk of cancer increases with increasing amounts of alcohol [37]. The findings revealed social factors such as violence, accident, divorce, child abuse, antisocial behavior, was the highest (63.0%), followed by health issue, such as headache, depression, lack of sleep, loss of appetite, gastrointestinal problem etc was (36.7%) and least of the problem was economic problems. The finding showed the magnitude of problems associated with alcohol use as it affects age of respondents. Age 15-20 has the highest degree of problems which include social, economic and health problems with (25.7%), followed by age 26 and above (23.0%). All age groups were affected at different point. This implies that alcohol is not a friend of any age group that abuses it. The havoc done by alcohol cut across all age groups in dose dependent manner. This could also explain the fact that, if someone started consuming alcohol in the twenties, then by the time he/she reaches 45 years old, he would either have died or suffered serious medical complications. According to the findings age 15-20 years has the highest magnitude of socioeconomic problems than any other group in this study. This was in line with (WHO, 2011), compared to all other age groups, the prevalence of periodic heavy or high-risk drinking is greatest among young adults aged 18 to 24, alcohol use disorders including alcohol dependence (alcoholism), also reaches the climax during this period [38] while most young adult's transition out of harmful drinking behaviors. A minority will continue to drink heavily into the later stages of adulthood [39]. These findings showed that male are the majority of alcohol consumers (47.9%) who has had a problem associated with alcohol consumption in their social life in the last their female counterparts with (31.5%). Alcohol misuse and dependence are higher in men than in women but the ratio varies across cultures. Gender also affects or predisposes one to abuse alcohol [40]. According to Fig 3 above showed the magnitude of problems as it affects educational level of respondents; tertiary has majority of problems (30.1%), followed by secondary (13.9%) and the least was primary (10.1%). This could be attributed to peer group influence and way of socializing and relaxation according among youth since they are on their own and are free to make their own decision [41]. Also, Adler et al., (1994) said "Educational level is a key component of socioeconomic status and strongly relates to a multitude of medical conditions, health behaviors, and mortality" [42]. This study showed that the brands of alcohol taken by respondents and the percentage of ethanol content. Beer was majority with (40.2%) respondents who responded positively for taken it, with ethanol content of 12.8%, followed by Spirit (24.0%) with ethanol content per 100mls ranging from 39.1% to 45.4%. People are intoxicated depending on the quantity of ethanol contained in the drink and the body's ability to withstand the strength. Adolescents takes

strong alcohol because they are still in the experimenting stage, they are fascinated by being intoxicated by alcohol and also used as a way of association with peer groups [43]. Table 6 showed there was high correlation between the independent variable (IDY) alcohol intake and the dependent Variables (DV): antisocial behavior, traumatic injury, health problems, and work problems. There was no correlation between alcohol intake and the following dependent variables: family neglect, family conflicts, divorce/broken relationships, school problems and child abuse. Over time, excessive alcohol use can lead to the development of chronic diseases, neurological impairments, including dementia, stroke and neuropathy [44]. Excessive consumption of alcohol has both direct and indirect effects on the poverty status of individuals, families and the entire community. Heavy drinking increase the risk of absenteeism, and low productivity as compared with light drinking, which may eventually lead to loss of employment [45-46].

CONCLUSION

The study findings established that alcohol problems were highly prevalent among the youth assessed. High prevalent rate was found in the following problems: Child abuse (11.6%), divorce (16.1%), violence (13.9%); lost jobs (19.1%) and on the health aspect, loss of appetite (16.2%). Magnitude of problems was highest among the following age groups and problems: work problems - age 21-26 (7.8%); health related problem - age 21-26years (9.1%); conflict was highest among single males (6.2%), health problems: singles (8.0%). Finally, brand /strength of alcohol taken: Beer was highest drink taken by (40.2%) of respondents with ethanol content (12.8%); followed by spirit (24%) of respondents and ethanol content of between (39.1% - 45.4%). The study revealed that alcohol intake has significant correlation with most of the problems assessed: such as family neglect, family conflict, school/work problems, accident, health issues and antisocial behavior except child abuse which recorded no significance among the study group.

RECOMMENDATIONS

The study revealed that the level alcohol intake was high; therefore, the way to reduce harmful drinking and alcohol-related problems among the study group is through comprehensive approaches that rely heavily on community action.

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