Drinking and its effects on risk behaviour amongst secondary school going youth in Windhoek

Lydia N. Kauari, Maria B. Kaundjua and Pempelani Mufune*

Obituary:

Pempelani Oliver Mufune was a Professor in the Department of Sociology at the University of Namibia for almost 20 years. He died on 7 March 2015. Prof. Mufune was hard working and was office bound 24/7. This culminated into numerous publications. Having him around made you feel better, with his loud laughter in the corridors and his practical jokes. As a colleague, Prof Mufune is unforgettable and irreplaceable. In his death, we all have lost a great mentor. May his soul rest in peace!

Abstract

Alcohol consumption is said to constitute an emerging social problem among adolescents and youth in Namibia with one study estimating that 53.5% of youths aged 13-30 use alcohol (Barth and Hubbard, 2009). It is also said to relate to many social problems including HIV risk taking, fighting, trouble with the police and violence among school going youth. It is in this context that the aim of this study was to provide empirical evidence on alcohol use and abuse in relation to risky behaviour amongst school going youths in Windhoek. A survey targeting several schools was conducted in Windhoek. Alcohol consumption and risk taking behaviour were assessed using a self-administered questionnaire. Chi-square test and logistic regressions were used to examine relationships involving alcohol use and risk taking behaviour. One of the main findings is that gender is a significant predictor of engagement in risk behaviour, such as sexual intercourse without a condom, fighting, trouble with the police and violence among those that engage in drinking. We conclude that there is the need to discourage alcohol use among school going youth as a way of fighting HIV/AIDS and other risk taking behaviour.

Introduction

According to Lebeau and Yoder (2009, p. xiii) the availability of alcohol at bars and private parties makes it easy for people to get drunk and participate in risky behaviour in Namibia. Lightfoot, Maree and Ananias (2009), and Mufune (2003 & 2008) agree by arguing that alcohol use is high in southern African countries, including Namibia. Alcohol consumption and alcohol related problems have become a pressing political issue in Namibia, with the government increasingly focusing on addressing the issue. This prompted the Namibian Police Commissioner, Sebastian Ndeitunga, to state: "Police records show that the majority of violent crimes such as murder, armed robberies, rape and violence against women and

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children, assault with intent to cause grievous bodily harm, are perpetrated either by people under the influence of alcohol or other intoxicating substances." (Kisting, 12 July 2012, p. 1) At national level, the government has moved to enforce the Liquor Act of 1998 that stipulates alcohol outlets must have proper documentation. The Act also aims at ameliorating shebeen problems, and at attempting to bring under license control unlicensed 'cuca shops', in order to curtail the current situation of an illegal sector operating alongside the legal sector; and to "address the problem of alcoholism, in so far as this problem can be handled or helped by legislation." (Government of the Republic of Namibia, 1998, 16 A iii)

The media has reinforced the perception that alcohol has become problematic in Namibia. Thus the *Informante* of March 28, 2012 asked the question: Is Namibia a country of shebeens? Its answer was a definite yes: "Namibia has become the country of shebeens. From the Orange River in the south to the Kunene, Kavango and Zambezi in the north, the trend is the same over the last 22 years. They have mushroomed at every growth point, even encroaching in formal town houses, sparked by massive unemployment and poverty." (Nangolo, 28 March 2012, p. 1)

Alcohol and drug abuse is seen to be one of the major social problems affecting youth in Namibia (UNICEF, 2006, p. 28; Ministry of Health and Social Services [MoHSS], 2007). Similarly, Barth and Hubbard (2009, p. 1) state that underage drinking has become a significant problem in Namibia. According to them, a Ministry of Health study on substance use amongst Namibians found that 53.5% of youths aged 13-30 use alcohol. The government has also been concerned with underage drinking. It has promulgated a Liquor Act aimed at controlling underage drinking. The Liquor Act of 1998 (Government of the Republic of Namibia, 1998, pp. 14-15) is quite specific on "the need to avoid, as far as possible, the establishment of licensed premises in the vicinity of schools or places of worship" (Government of the Republic of Namibia, 1998, 16 A iii). Section 56 of the Liquor Act states:

> *"No licensee, or manager or employee of such licensee, shall, in the course of business conducted in terms of a license, sell to any person under the age of 18 years, or supply such person with, any drink or substance which contains more than three per cent of alcohol by volume." (Government of the Republic of Namibia, 1998, pp. 14-15)*

Similarly, section 71(1)(s) of the Liquor Act says: "Any person, whether or not he or she is a license holder, who ... (s) sells or supplies any drink or substance referred to in section 56 to a person under the age of 18 years ... is guilty of an offence." (Government of the Republic of Namibia, 1998, pp. 14-15) This has been done in the belief that young people have relatively "little experience in alcohol-use situations, have less tolerance to the effects of alcohol, adopt high-risk patterns of alcohol use, often down play or have minimal understanding of potential harms associated with alcohol-use situations, and have limited knowledge or skills to minimize alcohol-related harms" (McBride**,** Farringdon & Midford, 2000, p. 54). As a result, the harms experienced by young people in association with their own and others' use of alcohol are relatively high and tend to be acute (*ibid*.).

Despite the widespread reporting of worsening problems with underage drinking, little recent systematic work has been undertaken to assess the effects of alcohol consumption on the behaviour of school children in Namibia. Although alcohol and Drug use by young people in African societies has generally increased over the past decade, there is a scarcity of research on alcohol and its links to risky behaviour amongst Namibian youth. Among the few general studies done on alcohol, are those by the LeBeau and Yoder (2009) and SIAPACC (2002). Even these studies did not tackle the issue of how alcohol use and abuse are related to risky behaviour. The purpose of the present study is to examine the relationship between specific categories of alcohol use and specific types of risky behaviour of adolescents, with particular reference to high school learners' in grade 10, 11 and 12.

Objectives of the study

The purpose of this study is to provide empirical evidence on alcohol use and abuse in relation to risky behaviour amongst school going youths in Windhoek. Specific objectives include:

- Investigate the influence of student use of alcohol on sexual encounters without a condom;
- Explore student use of alcohol and its influence on sexual intercourse that is regretted the next day;
- Examine the influence of alcohol use on trouble with the police;
- Analyse the relationship between student use of alcohol and accidents and injuries; and
- Investigate the relationship between alcohol and physical fights.

Findings of the study may inform policy makers on the effects of alcohol on adolescent behaviour. This knowledge may lead to more effective policy interventions and strategies addressing adolescent drinking behaviour.

Literature Review

Plant and Plant (1992) defines Alcohol abuse as taking alcohol in high quantities which then makes individuals oblivious to what is going on in their immediate environment. According to Plant and Plant (1992, p. 35), behaviour is defined to be risky when any action or form of behaviour becomes harmful to the individual or others who are within that person's immediate environment. Plant and Plant (1992, p. 35) argue that risk-taking amongst adolescents (and youth) is quite normal as "risk-taking and experimentation during adolescence are considered normal behaviour because they help adolescents achieve independence, identity and maturity" (Plant & Plant, 1992, p. 36). Despite this, "most young people do not expose themselves to major risks as the great majority of those who drink do so in moderation" (Plant & Plant, 2006, p. 61).

Alcohol and general risk taking

In 2004 the World Health Organization (WHO) and the Department of Mental Health and Substance Abuse estimated that there were about 2 billion people worldwide who consume alcohol and 76.3 million who may have diagnosable alcohol use problems (WHO & Department of Mental Health and Substance Abuse, 2004, p. 1). In addition to the health consequences for alcohol abuse, social consequences include drunkenness, violence, motor vehicle accidents, homicide and other social risk behaviours (Rehm, Gmel, Sempos & Trevisan, 2003, p. 42). Worldwide trends show that there has been an increase of alcohol consumption in many developing countries as their levels of economic development increase (*ibid.*). In southern Africa, adults in Mozambique drink 1.67 liters of pure alcohol per capita, in Namibia it is 2.39 liters, Zimbabweans drink 5.08 liters, in Botswana it is 5.38 liters and South Africa has the highest regional average with 7.81 liters of pure alcohol per capita (WHO & Department of Mental Health and Substance Abuse, 2004, p. 12).

In South Africa, Rocha-Silva (1992, p. 8) found that 34% of black youth age 10-21 had used alcohol in the previous 12 months. Flisher (1992) found that 27% of school going youth had engaged in binge drinking in schools in Cape Town. UNICEF (2006, p. 21) found that the median age at which Namibian youth (15-24) started drinking was 15 and that three out of 10 young people surveyed had already tried alcohol. It found that drinking alcohol increased the probability of youth having taken one or more sexual risks by a factor of 3.5 (UNICEF, 2006, p. 21). Studies of adolescents and young adults between 2002 and 2003 in Gauteng Province of South Africa point to strong links between drinking and engagement in sexual risk behaviour (Peltzer & Ramlagan, 2009, p. 9; Peltzer, 2010, p. 275). Earlier on Peltzer (2006, p. 197) had found that significantly more urban adolescents reported that they were

under the influence of drugs and/or alcohol at sexual debut than rural adolescents in South Africa. Morojele, Kachieng'a, Mokoko, Nkoko, Parry, Nkowane, Moshia and Saxena (2006) found that most drinkers in their South African sample felt that there was a strong link between alcohol use and higher-risk sexual behaviours. Among sexually active high school students nationwide (USA), 21.6% reported using alcohol or drugs prior to sexual activity (Centers for Disease Control and Prevention [CDC], 2010, p. 24). Opportunity to participate in proscribed behaviour for youth such as use of alcohol has been associated with risk behaviour, such as early the onset of the first sexual experience (Abma, Martinez, & Copen, 2010, p. 46). In Namibia, Nichols, Nkalamo and Whitcomb (2012) established a relationship between density of drinking establishments and HIV prevalence by neighbourhood, particularly the density of unregistered shebeens. The concept of drinking in moderation is uncommon in Namibia, and many people may not understand the difference between abstention and responsible drinking (Lebeau & Yoder, 2009, p. xiii). According to Pettersson, Linden-Boström and Eriksson (2009) parents matter in whether or not children drink. Fathers are more likely than mothers to have a non-restrictive attitude towards adolescents and alcohol (Pettersson, Linden-Boström & Eriksson, 2009).

Alcohol use, abuse and condom use

Alcohol has a long history of use in rituals and ceremonies to celebrate weddings, the birth of children, initiations, harvests and even funerals. Pattman (2007, p. 35) claims such occasions provide opportunities for sexual networking. For Plant and Plant (1992, p. 35) there is abundant evidence that heavy drinking and illicit drug use are associated with having sex without a condom. Although Cook and Clark (2005, p. 156) question the causal link between excessive alcohol consumption and rates of STIs, Bryant (2006, p. 1500) and Braithwaite, et al. (2008, p. 1193) link alcohol to HIV infection. Lavikainen, Ahlstrom, Metso, Nevalainen and Lintonen (2008, p. 174) found that frequency of drinking and drunkenness was related to sex without condom use although the likelihood for engaging in sexual intercourse without a condom was more among girls than boys. It seems that unsafe sex and risky drinking patterns among the general population are a lethal combination (Mufune, 2005).

The WHO and the Department of Mental Health and Substance Abuse (2004, p. 3) talk of substantial evidence linking alcohol consumption to increased risks of STI's and HIV infection; unprotected sex and gender-based violence while drunk have been found in populations where camaraderie encourages drinking. Kalichman, Simbayi, Vermaak, Jooste and Cain (2008, p. 56) report a South African study by Weir, et al. (2003) that mapped where people met new sexual partners and where people drunk. It found a significant overlap between the two activities, with 85% of places where people meet for sex also being drinking establishments, especially shebeens (Weir, et al., in Kalichman, et al., 2008, p. 56). In addition, between 30% and 57% of men, and 19% and 46% of women at these shebeens had two or more sexual partners in the two weeks preceding the research. Fritz, et al. (2002, p. 223) conducted a study of alcohol consumption and sexual relations among 15-21 year olds in Harare, Zimbabwe, in order to, among other reasons, identify avenues for intervention to reduce alcohol consumption and casual sex. The study found that 42% of young men and 32% of young women at drinking establishments had sex after drinking in the three months preceding the survey, while 15% of young men and 7% of women said they were drunk the last time they had sex.

Alcohol use and abuse and physical fights

Yu and Willford (1994, p. 383) say that, because physical fights are common, many people dismiss them as a normal part of the lives of young people growing up. Unfortunately, teens that use alcohol and drugs are much more likely to fight than those that do not

(Wieczorek, 1990, p. 220). In addition, fight participants who are drunk or high are much more likely to use weapons and cause serious injuries. Wieczorek (*ibid.*) also found that when the participants were drunk or high, over 60 percent were seriously injured (with broken bones, loss of consciousness, knife or gunshot wounds), and over half used weapons. In contrast, when alcohol and drugs were not involved, only 18 percent of the fights involved serious injuries or weapon use. Swahn, Bossarte and Sullivent (2008, p. 299) agree by showing that important consistent associations between early alcohol use initiation and violence exist. Similarly, Peleg-Oren, Saint-Jean, Cardenas, Tammara and Pier (2009, p. 1996) found that starting to drink early in life may lead to alcohol dependency, as well as delinquent behaviour**.** Lavikainen, et al. (2008, p. 175) show a relationship between the frequency of drinking and scuffles and fights among 15-16 year old adolescents in Finland. In Namibia, the United Nations (2004, p. 44) estimated that up to 90% of violent crimes were alcohol-related.

Alcohol use and abuse and trouble with the police

A lot of research has been done on the relationship between crime and the use of alcohol and other drugs (Anglin, 1988, p. 211). Cherpitle (1993, p. 927; 2007, p. 203) found a positive association between criminal behaviour and the abuse of alcohol and other drugs. He found that violent crimes were particularly linked to alcohol and drug abuse. However, Wieczorek (1990, p. 221) questioned the assumption that violent crimes are more likely to be committed by abusers of "hard" drugs, as opposed to less serious crimes by users of alcohol and marijuana. Simonds (1980) found that the number of drugs abused is more predictive of crime. Dee's (2001) research suggests that alcohol abuse is the most important substance-related factor in violence. Yu and Willford (1994, p. 380) found that early onset of legal drug use (e.g. alcohol and cigarettes) induces the onset of illicit drug use (e.g. marijuana and cocaine), and eventually leads to the involvement in criminal activity, including offenses against persons and property. Lavikainen, et al. (2008, p. 174) also linked alcohol to trouble with police among young Finnish people.

Alcohol use and abuse and accident or injury

According to Anderson, Wallace and Jones (1988, p. 56), any alcohol user is at risk, for example, of violence, unprotected sex, trouble with the police and other problems and, generally, the societies' view is that the more alcohol is consumed the greater the risk of such problems. Excluding traffic accidents, nearly two-thirds of males admitted to hospital due to accidents and being treated for head injuries, had blood alcohol levels equivalent to having drunk six or more pints of beer. About half of the home accidents are alcohol related and heavy drinkers have an accident rate at work three times higher than normal. Alcohol is the single most common factor associated with accidental death by drowning in England, of which half of it is estimated to be caused by alcohol abuse. In a review of ER studies done in Europe, Cherpitel (1993, p. 927 & 2007, p. 203) determined that this variation in blood alcohol level (BAL) or blood alcohol concentration (BAC) is due to differences in the time that passed between the injury and arrival in the ER, to individual characteristics of the particular ER populations studied (such as age, sex, and socioeconomic status all known to be associated with alcohol consumption in the general population) and to the mix of various types of injury in the ER caseload. More recent research by Rehm, Mathers, Popova, Thavorncharoensap, Teerawattananon and Patra (2009, p. 2229), also links alcohol use and abuse to accidents and injuries, and to unintentional injuries (Kool, Ameratunga & Jackson, 2009, p. 345). This has also been found in the research of Lavikainen, et al. (2008, p. 172) among 15-16 year old adolescents in Finland.

Materials and methods

Research design

The data of the research reported in this paper were collected through a quantitative survey in schools in the Windhoek area of Namibia in 2011. In this study, questionnaires were only administered to grade 10, 11 and 12 learners, as they are considered to be at an age more likely to experiment with alcohol. The schools selected for this study were: Concordia, Jan Jonker Afrikaner, St. Georges, A. Shipena, I. Shifidi, Academia, and David Bezuidenhoud High school. The schools were purposively selected to reflect high income (Windhoek City), middle income (Khomasdal), and low income (Katutura) areas. A total of 500 questionnaires were distributed among all the schools. Only 445 questionnaires were returned. All questionnaires were printed in the (official) English language.

Instrumentation

The study employed self-administered Likert-scale type items. The questionnaire used in this study was a modification of the European School Survey Project on Alcohol and Other Drugs (ESPAD) questionnaire among the youth in 35 European countries. The main purpose of the ESPAD was to collect comparable data on substance use among 15-16 year old European students in order to monitor trends within as well as between countries. In this study questions were modified to suit the Namibian school going youth, ranging between the ages of fifteen and twenty-one. The questionnaire included 345 close ended items which included a demographic section. Furthermore, the questionnaire consists of the following six consecutive sections:

Section 1: Includes background information about the respondents and the kind of things they might do (demographics).

Section 2: Deals with cigarettes, alcohol and various other drugs.

Section 3: Includes questions about the thoughts of parents of respondents about alcohol and drug use.

Section 4: Is about what the respondent thinks of him or herself.

Section 5: Includes some more questions about dagga.

Section 6: Includes some questions about alcohol and moist snuff.

Sampling

The sample for this population was selected using a multi-stage sampling procedure. In the first stage, public and private schools in the Windhoek area were classified into three groups (clusters) in order of their fee scale: high, middle and low fees to make the sample inclusive of children from different economic backgrounds. The three clusters were Katutura (low income), Khomasdal (middle income) and Town (high income) areas of Windhoek. In the second stage simple random sampling was used to select schools from each of the three clusters in Katutura; the study was conducted at A. Shipena, Shifidi and Jan Jonker Afrikaner High Schools. In the Khomasdal area, David Bezuidenhoud High School was included. The schools selected in town included Concordia, St. Georges and Academia High School. Finally, students in the appropriate grades (10, 11 and 12) from each school were interviewed. The sample size of each school was about sixty (n=60).

A pretest was conducted at Concordia High School. It was conducted with the permission of the principal and was carried out during their guidance classes.

The data processing was done with the SPSS (Statistical Package for the Social Sciences version 20), where each response in the questionnaire was coded and got a numerical value for statistical analysis and interpretation. Percentages, Chi-Squares and regression were the statistical tests used to compare boys and girls on their risky experiences due to own

alcohol use. The binary logistic regression model was used to estimate the probability of experiencing risky behaviour due to own alcohol use. The results of the logistic regression model were converted to odd ratios.

Findings

Characteristics of the respondents

This research comprised of 455 learners of which 43.1% were male and 56% female. They came from A Shipena High School (12.3%), Academia High School (12.7%), David Bezuidenhout Secondary School (8.1%), Jan Jonker Afrikaner High School (13.2%), Immanuel Shifidi High School (13.0%), Saint George's Diocesan College (12%) and Concordia College (28.1%). These numbers represented a response rate of 91%. A total of 20.9% learners were in grade 10, 43.3% were in grade 11 and 34.7% were in grade 12. About 37.5% of students who were 16 years of age, were in grade 10, 56.3% were in grade 11 and 6.3% were in grade 12. Among those who were 17 years of age, 18.5% were in grade 10. About 60% were in grade 11 and 22% were in grade 12. Among those who were 18 years of age, 11% were in grade 10, 27% in grade 11 and 22% in grade 12. About 11% of those who were 19 years of age, were in grade 10, 33% in grade 11, 66% in grade 12. Among the students that were 20 years of age, 33% were in grade 11 and 66% in grade 12, and finally, 40% of those who were 21 years old, were in grade 11, while 60% were in grade 12.

Table 1: Prevalence (%) of reported risky experiences by gender

Risky experiences due to own alcohol use	Total (%)		Girls (%)		Boys (%)	
	Yes	No	Yes	No	Yes	No
Engaged in sexual intercourse without using a condom (406 =228 girls & 178 boys)	10	90	6	94	18	82
Getting into physical fight (440=245 girls & 195 boys)	17	83	11	89	24	76
Accident or injury (445=246 girls & 199 boys)	12	88	9	91	15	85
Got into trouble with the police (407=229 girls & 178 boys)	7	93	4	96	11	89
Engaged in a regretted sexual intercourse (406=228 girls & 178 boys)	11	89	7	93	16	84

As shown in table 1 most of the students did not engage in risky behaviour due to own alcohol use. Thus, only 42 (10%) of the respondents reported engaging in sexual intercourse without a condom, 73(17%) got into physical fights, 53 (12%) got accidents or injuries, 27 (7%) got into trouble with the police, and 45 (11%) engaged in a regretted sexual intercourse because of alcohol use. Despite this picture, it seems that risky behaviour due to own alcohol use was much less among girls than among boys; almost a fifth (18%) of the boys engaged in sexual intercourse without condom use as a result of alcohol use. Similarly, almost a quarter (24%) of the boys got into physical fights as a result of alcohol use. Whereas only 4% of the girls got into trouble with the police as a result of alcohol use, 11% of the boys did so.

The above picture is more or less replicated when we take into account occasions of lifetime alcohol use. Table 2 looks at self-reported risky experiences on occasions of lifetime alcohol use among girls and boys in our sample.

Table 2: Prevalence (%) of reported risky experiences by occasions of lifetime alcohol use among girls and boys

Risky experiences due to own alcohol use	Occasions of lifetime alcohol use					
	Girls			Boys		
	Never	1-5	6+	Never	1-5	6+
Engaged in sexual intercourse without using a condom	214 (93%)	10 (5%)	4 (2%)	150 (84%)	21(12%)	7 (4%)
Getting into physical fight	219 (89%)	18 (7%)	8 (4%)	148 (76%)	42(21%)	3% (5)
Accident or injury	223 (90%)	19 (8%)	4 (2%)	165 (85%)	29 (14.5%)	1 (0.5%)
Got into trouble with the police	221 (96%)	4 (2%)	4 (2%)	159 (89%)	15 (7%)	7 (4%)
Engaged in a regretted sexual intercourse	212 (93%)	15 (6.6%)	1 (0.4%)	149 (84%)	21 (12%)	8 (4%)

Table 3: Associations between engaging in sexual intercourse regretted the next day and gender, lifetime alcohol use, and frequency of drunkenness.

Variable	Engaged in sexual intercourse regretted the next day due to own alcohol use				
	Yes (%)	No (%)	χ^2	Odds Ratio (OR)	95% CI
Gender					
Boy	29(16%)	149(84%)	8.73**	2.58**	1.35- 4.93
Girl (Ref)	16(7%)	212(93%)		1.00	
Use of alcohol					
Never	16(7%)	202(93%)		ns	-
1-5	15(12%)	113 (88%)	16.73**	ns	-
6-9	8(34%)	16(66%)		ns	-
10+(Ref)	5 (19%)	22(81%)		ns	-
Drunkenness					
Never	0 (0%)	48 (100%)		ns	-
1-5	32(12%)	242(88%)	9.10**	ns	-
6-10 (Ref)	13(19%)	56(81%)		ns	-

Ref = reference category;*= p≤0.05; **=p≤0.01**; ns= not significant based on Wald's chi-square test for the significance of the regression coefficient.

Table 3 presents a model with gender, use of alcohol and drunkenness as predictors of the individual's engagement in sexual intercourse that is regretted the next day. In the bivariate model, gender, use of alcohol and drunkenness are all significant predictors (p≤0.01) of whether or not one engages in sexual intercourse. In the regression model,

however, lifetime use of alcohol and frequency of drunkenness come out as not significant. The differences in observed results between the bivariate analyses and the regression model probably indicates that, though lifetime use of alcohol and the frequency of drunkenness do not have a direct relationship with the response variable, it might still have an indirect effect through gender or other variables that were not included in this model.

Table 4 presents a model with gender, use of alcohol and drunkenness as predictors of an individual's engagement in sexual intercourse without a condom. Again gender emerges as a significant predictor of the relationship. Boys engage in sexual intercourse without a condom due to own alcohol us more significantly than girls in this sample ($p \leq 0.01$). Table 4 shows that the odds (2.91, $p \leq 0.01$) of engaging in sexual intercourse due to alcohol use increase with being male. Frequency of use of alcohol is also a significant predictor of sexual intercourse without a condom; however drunkenness that is related to the style of drinking does not seem to predict this relationship though it could be indirectly related to it.

Table 4: Associations between engaging in sexual intercourse without a condom, and gender, lifetime alcohol use, and frequency of drunkenness.

Variable	Engaged in sexual intercourse without a condom due to own alcohol use				
	Yes	No	χ^2	Odds Ratios (OR)	95% CI
Gender					
Boy	28 (16%)	150 (84%)	9.21**	2.91**	1.45- 5.60
Girl (Ref)	14(6%)	214 (94%)		1.00	
Use of alcohol					
Never	16 (7%)	202 (93%)		0.19**	0.07- 0.50
1-5	11(9%)	117 (91%)	16.61**	0.22**	0.08- 0.63
6-9	5(21%)	19 (79%)		0.63ns	-
10+ (Ref)	8 (30%)	19 (70%)		1.00	
Drunkenness					
Never	0(0%)	48 (100%)		ns	-
1-5	29 (11%)	245(89%)	9.13**	ns	-
6-10 (Ref)	12 (17%)	57 (83%)		ns	-

Ref= reference category; *=p≤0.05; **=p≤0.01; ns= not significant based on Wald's chi-square test for the significance of the regression coefficient.

Table 5 presents a model with gender, use of alcohol and drunkenness as predictors of getting into trouble with the police. Chi-square values show that gender, frequency of drinking, and drunkenness all emerge as significant predictors of the relationship. Drunkenness-related drinking style is significantly related to getting into trouble with the police, while frequency of alcohol use per se was not. The more drunkenness one engages in, the higher the likelihood (OR) for getting into trouble with the police ($p \leq 0.01$). Only highly frequent drunkenness (6-10) increased the likelihood of trouble with the police in a statistically significant manner ($p \leq 0.01$).The likelihood of getting into trouble with the police under the influence of alcohol is much increased among boys compared to girls (Table 5).

Table 5: Associations between getting troubles with police and gender, lifetime alcohol use and frequency of drunkenness.

Variable	Got into trouble with the police due to own alcohol use				
	Yes (%)	No (%)	χ^2	Odds Ratio (OR)	95% CI
Gender					
Boy	19(11%)	159 (89%)	14.04*	3.30*	1.41-7.73
Girl(Ref)	8(3%)	221 (97%)		1.00	
Use of alcohol					
Never	7(3%)	210(97%)		0.15**	0.43 -
1-5	11(6%)	117 (94%)	14.21**	0.41ns	0.50
6-9	4 (16%)	21(84%)		0.84ns	0.13 - 1.31
10+ (Ref)	5 (19%)	22 (81%)		1.00*	0.20 – 3.60
Drunkenness					
1-5	12(4%)	259(96%)		2. 30ns	0.31
6-10	13 (19)	57(81%)	19.10**	11.17**	–18.10
Never (Ref)	1(2%)	49(98%)		1.00	1.41- 88.51

Ref = reference category; *=p≤0.05;**= p≤0.01; ns= not significant based on Wald's chi-square test for the significance of the regression coefficient.

Table 6 looks at associations between getting in accident or injury and gender, lifetime alcohol use, and frequency of drunkenness. The chi-square shows that both frequency of alcohol use and drunkenness are significantly related to accidents and injuries (p≤0.01). The more frequent the alcohol use, the higher the likelihood (OR) for accidents or injuries. Only highly frequent drunkenness (6-10), however, significantly increased the likelihood of accidents and/or injuries (Table 6).

Table 6: Relationships between getting in Accident or injury and gender, lifetime alcohol use, and frequency of drunkenness, in multivariate logistic regression analysis

Variable		Got into Accident or injury due to own alcohol use			
	Yes (%)	No (%)	χ^2	Odds Ratio (OR)	95% CI
Sex					
Boy	30(15%)	165(85%)	3.74*	1.76*	0.98 -
Girl	23 (9%)	223 (91)		1.00	3.14
Use of alcohol					
Never	10(4%)	231(96)		0.11**	0.38 –
1-5	25(19%)	110 (81%)	38.93**	0.57ns	0.30
6-9	9(34%)	18(66%)		1.25ns	0.23 –
10+	8(29%)	20(71)		1.00	1.44
					0.41 – 3.93
Drunkenness					
1-5	27(9%)	266(91%)		6.10ns	0.76 –
6-10	21(28%)	54(72%)	27.03**	22.10**	43.00
Never (Ref)	1 (2%)	56(98%)		1.00	3.03 – 167.58

*Ref = reference category; *=p≤0.05; **= p≤0.01, ns= not significant based on Wald's chi-square test for the significance of the regression coefficient.

Table 7: Relationships between engaging into physical fight and gender, lifetime alcohol use, and frequency of drunkenness, in multivariate logistic regression analysis

Variable	Getting into physical fight due to own alcohol use				
	Yes (%)	No (%)	χ^2	Odds Ratio (OR)	95% CI
Sex					
Boy	47	148	14.28**	2.68**	1.60- 4.50
Girl (Ref)	26	219		1.00	-
Use of alcohol					
Never	20	221		0.14**	0.06-
1-5	31	104	30.15**	0.46*	0.34
6-9	8	19		0.65(ns)	0.20- 1.11
10+ (Ref)	11	17		1.00	0.21- 2.10
					-
Drunkenness					
Never (Ref)	1	56		1.00**	-
1-5	42	251	31.03**	9.37**	1.23-70.00
6-10	27	48		32.00**	4.12- 241.00

Ref = reference category; p≤0.05; ** p≤0.01, ns= not significant based on Wald's chi-square test for the significance of the regression coefficient.

Table 7 shows that both gender and frequency of alcohol use are significantly related to getting into physical fight (p≤0.01). Those that have 1-5 drinks have higher odds for a physical fight. Although drunkenness significantly increased the likelihood of physical fights (table 7) the confidence levels are too wide to accept the result as significant.

Discussion and conclusion

This research used a version of the European School Survey Project on Alcohol and Other Drugs (ESPAD) questionnaire among the youth in 35 European countries. The main purpose of the ESPAD was to collect comparable data on substance use among 15-16 year old European students in order to monitor trends within as well as between countries. In this study questions were modified to suit the Namibian school going youth, ranging between the ages of fifteen to twenty-one. This paper specifically reports on findings linking drinking, drunkenness, gender on one hand and risky behaviour (trouble with police, sex without condoms, physical fights and accidents/injuries) on the other hand. Among the major findings is that gender emerges as a significant predictor of engagement in sexual intercourse without a condom as boys engage in sexual intercourse without a condom due to own alcohol use more significantly than girls. Similarly, boys are more likely to be in a physical fight and get into an accident or injury due to own alcohol use than girls. The results from the Chi-squares test and regression show that gender is stronger predictor of engaging in risk behaviour, such as sexual intercourse without a condom, fighting, trouble with the police and violence among those that engage in drinking. These findings are in line with cultural expectations of gender in Namibia. Girls are expected to be more reticent in their behaviour than boys who are expected to display their masculinity (Mufune, 2003). Getting into trouble with police and physical fighting are in line with these masculine values. Chi-square values show a relationship between frequency of alcohol use and drunkenness on one hand and sexual intercourse that is regretted the next day

but this is not significant in the regression equation. In this sample drunkenness-related drinking style is significantly related to getting into trouble with the police, while frequency of alcohol use per se was not. Only high drunkenness (6-10) increased the likelihood of trouble with police in a statistically significant manner ($p \leq 0.01$). From these we can generally conclude that school going youths that engage in alcohol use experience are at risk of many problems, including exposure to unsafe sex, involvement in accidents and criminal activities. Yes, these risks are not only limited to those that drink but these data show that they are accentuated with drunkenness and frequency of drinking. This is in support of the study by Lavikainen, Ahlström, Metso, Nevalainen and Lintonen (2008) that found that among Finnish adolescents prevalence of negative experiences increased with frequency of drinking and drunkenness. Boys seem to be at more risk than girls and this is most probably related to double standards that exist in many of Namibia's cultural belief systems.

One implication flowing from this research is the need to discourage alcohol use among school -going youth as a way of fighting HIV/AIDS related risks and other risky behaviours. It may be important that Namibia puts emphasis on the need to strengthen parental and educators' supervision role as well as firming up the regulatory framework on alcohol consumption among school going youth. One limitation of this study is that it is based on a questionnaire that was developed in Europe and for European school going youth. We tried to adapt the questionnaire to Namibia but the extent to which we succeeded remains a matter of debate. This research is also limited to several schools in Windhoek and may not reflect what happens in Namibia as a whole.

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