Investigation of the determinants of alcohol use among women in Oshikoto region, Namibia

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Abstract

Background. Alcohol abuse is one of the world's main public health issues. Alcohol use is growing among African women, and it has become an underlying factor in women's health risk profiles.

Objective. The purpose of this study is to investigate the factors that influence women's alcohol consumption in the Oshikoto Region.

Materials and Methods. The study used a quantitative research method with a cross-sectional, analytical design. Data were gathered using interview-led questionnaires from 121 women aged 18-49 years at two state hospitals in the Oshikoto region's two selected constituencies. The Statistical Package for the Social Sciences, version 26, was used to evaluate the data.

Results. The subjects' median age was 33 years old. The bulk of the participants, 84 (69.4%), resided in rural areas. 49 (40.5%) of the participants were unmarried, and the majority (62%) had children. According to the results, 64 (52.89%) of respondents use alcohol to cope with their problems on occasion. When they are anxious, approximately 56 (46.28%) of the respondents use alcohol to relax and ignore their problems. In the univariable log-binomial regression analysis, a family history of alcohol use (p-value 0.019), peer pressure (p-value 0.004), and spending the majority of time at Cuca shops (p-value 0.000) were all linked with an increased risk of harmful alcohol use.

Conclusion. Identifying the determinants of alcohol use may aid in the creation of recommendations for preventative measures and alcohol awareness programs.

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Introduction

Alcoholic beverages are widely consumed throughout the world in numerous ways, and it creates significant public health and safety problems among nations.[1] Alcohol use is defined "as the use of alcoholic beverages to excess, either on individual occasions (binge drinking) or as a regular practice".[2] Globally, almost four percent of all deaths are attributed to alcohol use, therefore proving that the hazardous and harmful use of alcohol is a major global contributing factor to morbidity, mortality, and injuries.[1]

Furthermore, a rise in alcohol use from social drinkers, particularly among young women, has been reported in a number of African countries such as Ghana, Zambia, and Uganda.[3] The prevalence of alcohol usage among women in African countries varies; it is projected at 47% in Namibia, 42% in Zambia, 38% in Nigeria, 30% in Botswana, and 20% in Uganda.[4] In Sub-Saharan Africa, the use of alcohol is increasing among women, making it an important factor in any woman's health risk profile.[5] The WHO reported that Namibia was among the countries with the highest level of per capita alcohol dependence within the African regions.[4] More than half of Namibian adults consume an average of 10 liters of alcohol per day, with a large proportion of adult consumers of alcoholic beverages being women.[6] Alcohol consumption is increasing in the northern regions of Namibia, particularly the four regions: Ohangwena, Oshana, Omusati and Oshikoto.[7] Home-brewed beer is the most widely used type of alcoholic beverage that counts for 67% of the total consumption in the northern regions of Namibia. Based on the Oshikoto Namibian Police Patrol report (2017-2018), women are reported to spend most of the time (day and night hours) drinking in shebeens, bars and open markets.[8] There is a scarcity of literature on contributing factors to alcohol use among women in the Oshikoto region. The study investigated the determinants of alcohol use among women in the two constituencies of the Oshikoto region.

Materials and Methods

Ethical considerations

An ethical clearance was sought and obtained from the University of Namibia's Human Research Ethics Committee (HREC) OSHAC 591/2020 and the Ministry of Health and Social Services Ref: 17/3/3 RNN. Access permission to the two hospitals in Oshikoto was sought and granted by the Oshikoto regional health directorate. Written informed consent was sought from all participants after an explanation of the purpose of the study had been given by the researcher prior to participation. To ensure anonymity, no participants' names or personal identifying information was collected on the questionnaires; participants' codes were used instead. The questionnaire in this study was carefully designed to ensure that it does not invoke emotional or psychological distress among the participants. Furthermore, participants were given options to indicate when they did not feel comfortable answering certain questions. To ensure justice all respondents were selected to participate in the study, they were treated in the same way and answered the same questions during data collection.

Study setting

The study was conducted at two hospitals, Onandjokwe Intermediate Hospital in the Oniipa constituency and Omuthiya district hospital in the Omuthiya constituency, in the Oshikoto region. Both hospitals are located in northwest Namibia, about 750km from the capital city of Windhoek. These hospitals serve many people in the region and Onandjokwe hospital serves as the referral hospital for many district health facilities in the Ohangwena, Oshikoto and Oshana regions of Namibia. The hospitals provide PHC, secondary as well as rehabilitative health care services, and most people in the region prefer to look for services in the two hospitals. Based on the Oshikoto Namibian Police Patrol report (2017-2018), women are reported to spend most of the time (day and night hours) drinking in shebeens, bars, and open markets.[8] The study population was accessible in these two hospitals as Oniipa and Omuthiya are mostly populated towns in the Oshikoto region.

Study design

This study used a quantitative approach of analytical cross-sectional study design.

Population and sampling

The study population were all women aged 18-49 years residing in the two selected constituencies. The inclusion criteria were: all women aged 18-49 years, alcohol users residing in the two selected constituencies, and were receiving their medical consultations at Omuthiya State Hospital and Onandjokwe Intermediate Hospital during study period. Women who were able to sign the study consent fully conscious, psychologically stable during the time of study, were eligible to participate in the study. This study excluded women aged less than 18 years and over 49 years. Furthermore, women aged 18 to 49 years residing in Oniipa and Omuthiya constituency, who were not conscious, not psychologically stable, were under alcohol intoxication and unable to sign the consent to participate in the study, were excluded.

A purposive sampling was used to select the participants. The formula for estimating sample size for a single proportion was used to calculate the required sample size. An estimated prevalence of alcohol use of 10.2% from a study conducted in Namibia and a 95% confidence interval with a half-width of 5% were used with the formula. Hence, the required sample size to estimate the prevalence with the minimum random error was calculated as follows: i) 95% confidence interval with a half-width of 5%; ii) estimated Oshikoto regional prevalence of alcohol use from the literature of 10.2%; iii) applied formula: $N = ((1.96^2 \times P\,(1\text{-}P)) \div d^2$; iv) whereby p is the proportion from the literature, and d is the half-width of the confidence interval.

$$N = \left[\left(1.96^2 \times p \times (1-p)\right) \div d^2\right]$$

$$= \left[\left(1.96^2 \times 0.102 \times (1-0.102)\right) \div 0.05^2\right]$$

$$= \left((3.8416 \times 0.102 \times 0.898) \div 0.0025\right)$$

$$= 141$$

Therefore, the required sample size was a total of 141 participants which was split equally between the two constituencies, whereby Oniipa had 71 participants, while 70 participants were recruited from Omuthiya . However, data were only collected from 121 respondents due to COVID 19 restrictions.

Data collection and analysis

Data collection was collected from March to May 2021. Data were collected with a questionnaire with close-ended questions due to its main advantage of covering a large number of people easily and economically, and because it provides quantifiable answers. The questionnaire was developed by the researchers in English and was translated into Oshiwambo because most of the participants in the two constituencies are Oshiwambo speaking and researchers are conversant in both Oshiwambo and English.

The researchers planned for the venue, date and time for data collection at Onandjokwe and Omuthiya state hospitals, respectively. Participants were approached and recruited from the outpatients' departments, specifically at Primary Health Care (PHC), as they came in and waited for consultation. The consultation rooms at the two hospitals were used during data collection to ensure privacy and confidentiality. The data were analyzed by means of Statistical Package for the Social Sciences, version 26. Descriptive statistics such as means, percentage, and frequency were used to describe and summarize variables, and data was presented in frequency tables. A Chi-square statistical test was used to determine the association between variables. A Fisher exact test was used where the Chi-square statistical test was not applicable. Log-binomial regression reporting risk ratios were applied to assess the association between determinants of alcohol use and risky use of alcohol. In the current study, face validity was established when the researcher conducted the pilot study, and participants were invited to give feedback on how they understood the questions and their meanings. The adjustment was made to the questionnaire based on the pilot study. Content validity was established when the questionnaire was reviewed by an expert in the field, to see if it measured the characteristic of interest as well as the assessment of completeness, consistency and accuracy. Construct validity was ensured by the use of related literature that defines the constructs being measured during the development of the questionnaire. A coefficient test of the data collection tool was 0.72, which was accepted as indicating a reliable instrument.

Results

Sociodemographic characteristic

Table 1 shows that most of the respondents, 45 (37.19%), were

in the age group 27-35 years, and about 13 (10%) were aged 45-49 years old. The median age of the participants was 33 years, with an interquartile range of 27-39.5 years. Most respondents, 84 (69.4%), were residing in villages and 37 (30.6%) lived in towns. Furthermore, the majority, 99 (81.82%), were Christians, while 22 (18.18%) belonged to other religions Most respondents were single 49 (40, 5%), followed by 23 (19.0) cohabitating, while 9 (7.4%) of the respondents are widowers. Furthermore, most of the respondents, 75 (62%), indicated having children, and about 46 (38%) did not have children. less than half of the respondents were unemployed 57 (47.1%), 41 (33.88%) were employed, while 23 (19.0%) respondents were self-employed. In addition, 48 (39.6%) of the respondents had acquired a secondary education, whereas 38 (31.4%) respondents had achieved tertiary education levels, 20 (16.53%) attended primary education while 15 (12.4%) respondents had never attended school. Regarding the family history of alcohol use, the majority of the respondents, 89 (73.55%), have a history of alcohol use in their family, while 32 (26.45%) respondents have no family history of alcohol use. About thirty-eight (31.40%) respondents specified drinking alcohol three to five days per week, whereas 23 (19.01%) respondents drank alcohol about one to two days per week. Moreover, respondents who drank daily were 29 (24%) and weekend-only drinkers counted 31 (25.65%) correspondingly. About third 36 (29.75%) of the respondents consume about three to four alcoholic drinks per day, while only 12 (9.92%) of the respondents take ten or more alcoholic drinks per day.

Determinants of alcohol use

As displayed in Table 2, the distribution of the respondents on the determinants of alcohol use demonstrates that more than half, 64 (52.89%) of the respondents use alcohol sometimes in order to cope with their problems, while 21 (17.36%) of the respondents consume alcohol every time to enable them to cope with their problems. About 56 (46.28%) of the respondents use alcohol when they feel anxious, making them feel relaxed and forget their challenges, and only 13 (10.74%) respondents use alcohol every time when they feel anxious. Furthermore, less than half, 49 (40.50%), of the respondents have indicated that they drink alcohol sometimes because their friends are doing so or due to peer pressure, while only 18 (14.88%) respondents drink alcohol every time due to peer pressure. In addition, the respondents who drank alcohol due to spending most of their time at the cuca shops/bars counted forty-one (34.17%), and 13 (10.83%) of the respondents indicated drinking alcohol every time due to spending a lot of their time at the cuca shops/bars.

The Fisher exact test was used to assess the association between the determinants of alcohol use and the levels of alcohol use by the respondents, as shown in Table 3. All tests were set at a significance level of 0.05. Only drinking because friends are doing so (P=0.026) and spending time at cuca shops (P=0.000) were significantly associated with the levels of alcohol use. Further, the univariable log-binomial regression analysis found that, family history of alcohol use (P-value=0.019), peer pressure (P-value=0.004), and spending most time at cuca shops (P-value=0.000) were all significantly associated with an increased risk of harmful use of alcohol. In contrast age (P-value=0.329), residence (P-value=0.437), being employed (P-value=0.565), education (P-value=0.199), and being unemployed (P-value=0.777) were not significantly associated with harmful use of alcohol. In the multivariable log-binomial regression above, spending most of the time at cuca shops (P-value=0.000) increased the risk of risky use of alcohol by 70%, after adjusting for peer pressure (P-value=0.781) and family history of alcohol use (P-value=0.064). Family history of alcohol use and peer pressure were not significantly associated with the risky use of alcohol in the multivariable regression model.

Table 1. Age classification of the respondents.

Age groups	Frequency (N)	Percent (%)
18-26	26	21.49
27-35	45	37.19
36-44	37	30.58
45-49	13	10.74
Total	121	100.00

Discussion

The findings of this current study discovered that a greater proportion of the respondents were in the age group between 27 and 35 years old. The study conducted in Namibia, Oshana region, on the exploration of the psycho-social determinants of heavy alcohol drinking amongst women, showed that women who participated were between the ages of 22 to 35.[3] Furthermore, current findings are almost similar to those from a study done in Uganda on alcohol use among adults which have disclosed that most of the female participants were aged between 30 and 49 years old.[9] In respect of religious status, the current study was dominated by Christian respondents. According to the Ministry of Health and Social Service and Namibian Demographic and Health Survey,[10] 90% of the Namibian population is predominantly Christian. The current study findings concur with findings from a study conducted in

Table 2. Determinants of alcohol use.

Determinants of alcohol use	No (%)	Yes sometimes (%)	Yes, every time (%)	Total (%)
I drink alcohol when I feel anxious	52 (42.98)	56 (46.28)	13 (10.74)	121 (100)
I drink alcohol because all of my friends are doing so	54 (44.63)	49 (40.50)	18 (14.88)	121 (100)
Drinking alcohol helps me to cope with my problems	36 (29.75)	64 (52.89)	21 (17.36)	121(100)
Drinking alcohol makes me forget my challenges and relax	55 (45.45)	56 (46.28)	10 (8.26)	121 (100)
If I don't drink more alcohol, I won't be able to sleep	76 (62.81)	38 (31.40)	7 (5.79)	121(100)
I spend most of my time at the cuca shops/bars	66 (55.00)	41 (34.17)	13 (10.83)	121 (100)
I drink alcohol so that I can be accepted in my community	102 (84.30)	12 (9.92)	7 (5.79)	121 (100)
I just drink alcohol because it is cheap and on sale most of the time	105 (86.78)	14 (11.57)	2 (1.65)	121(100)
I drink alcohol because my parents drink too	107 (88.43)	12 (9.92)	2 (1.65)	121(100)

Kenya on correlates of alcohol consumption, which stated that 99% of the participants were Christians and only one percent were Muslims.[11] Above and beyond that, the current study has pinpointed that about two-thirds of the respondents have children. Even though most of the participants in the current study were single, they were mothers and responsible for nurturing their children.

Regarding employment status, the current study indicated that most of the respondents are unemployed 57 (47.1%). Similar findings from a study done on predictors of alcohol and other drug use among pregnant women in a peri-urban South African setting, have stated that about 58 percent of the respondents were unemployed,[12] Nevertheless, the study findings are in contrast with those of Anyawie,[13] on factors affecting alcohol use among women in Ghana which revealed that the majority (80%) of the women were employed, and among them about 36,8% consume alcohol. The high unemployment percentage is likewise reinforced by a study conducted in the United States of America on psychosocial determinants of alcohol and drug use, suggesting that unemployed adult women tend to use alcohol when life feels hopeless for them, compared to employed adult women,[14] Because of their unemployment status, women living in poverty tend to spend most of their time at cuca shops/bars, and while there, they tend to consume alcohol to rebuke the boringness of life. Based on the family history of alcohol use, the current study findings show that the majority of the respondents have a history of alcohol use in their families. The current study findings are in conjunction with the previous study findings on alcoholism and alcohol abuse, which indicated that people who have a family history of alcoholism or who associate closely with heavy drinkers are more likely to develop drinking problems.[15] Similarly, a study conducted in the United States on psychosocial factors in alcohol use and alcoholism, reported that it has extensively been recognized that alcoholism runs in families.[16] In a similar previous study in Ghana by Anyawie,[13] children who grow up in alcoholics families are five times more likely to develop alcoholism later in life. Thus, a family history of alcoholism is a well-established risk factor for the development of alcoholism.[16] The study has found that the determinants of alcohol use among women diverge, ranging from the social, psychological, environmental, and economic determinants. The current study findings have demonstrated that more than half of the respondents use alcohol sometimes in order to cope with their problems, while 46.28% of the respondents use alcohol when they feel anxious. A previous study conducted in the northern region of Namibia in the Oshana region revealed that psychological stress, which includes depression, anxiety, irritability, denial, and anger, is related to higher frequencies and volumes of alcohol consumption among women in Namibia.[2] In a similar study done in Kenya,[17] on the determinants of harmful use of alcohol among urban slum-dwelling adults, respondents reported several reasons for engaging in alcohol consumption, including stress, peer pressure, fun, and addiction.

Table 3. Association between the determinants of alcohol use and the levels of alcohol use.

Determinants of alcohol use		Level of alcohol use (%)		Row total	P-value
		Normal use	Harmful use		
I drink alcohol when I feel anxious	No	32 (61.5)	20 (38.5)	52	0.462
	Yes (S)	39 (69.6)	17 (30.4)	56	
	Yes (E)	7 (53.8)	6 (46.2)	13	
	Total	78	43	121 (100%)	
I drink alcohol because all of my friends are doing so	No	40 (74.1)	14 (25.9)	54	0.026
	Yes (S)	31 (63.3)	18 (36.7)	49	
	Yes (E)	7 (38.9)	11 (61.1)	18	
	Total	78	43	121 (100%)	
Drinking alcohol helps me to cope with my problems	No	25 (69.4)	11 (30.6)	36	0.427
	Yes (S)	42 (65.6)	22 (34.4)	64	
	Yes (E)	11 (52.4)	10 (57.6)	21	
	Total	78	43	121 (100%)	
Drinking alcohol makes me to forget my challenges and relax	No	37 (67.3)	18 (32.7)	55	0.580
	Yes (S)	36 (64.3)	20 (35.7)	56	
	Yes (E)	5 (50.0)	5 (50.0)	10	
	Total	78	43	121 (100%)	
If I don't drink more alcohol, I won't be able to sleep	No	48 (63.2)	28 (36.8)	76	0.314
	Yes (S)	27 (71.1)	11 (28.9)	38	
	Yes (E)	3 (42.9)	4 (57.1)	7	
	Total	78	43	121 (100%)	
I drink alcohol because my parents drink alcohol too	No	68 (63.6)	39 (36.4)		0.593
	Yes (S)	9 (75.0)	3 (25.0)		
	Yes (E)	1 (50.0)	1 (50.0)		
	Total	78	43	121 (100%)	
I just drink alcohol because it is cheap and on sale most of the time	No	67 (63.8)	38 (36.2)	105	0.893
	Yes (S)	10 (71.4)	4 (28.6)	14	
	Yes (E)	1 (50.0)	1 (50.0)	2	
	Total	78	43	121 (100%)	
I drink alcohol so that I can be accepted in my community	No	67 (65.7)	35 (34.3)	102	0.789
	Yes (S)	7 (58.3)	5 (41.7)	12	
	Yes (E)	4 (57.1)	3 (42.9)	7	
	Total	78	43	121 (100%)	
I spend most of my time at the cuca shops/bars	No	47 (71.2)	19 (28.8)	66	0.000
	Yes (S)	29 (70.7)	12 (29.3)	41	
	Yes (E)	1 (7.7)	12 (92.3)	13	
	Total	78	43	121 (100%)	

This current study has established that less than half of the respondents drink alcohol sometimes because their friends are doing so or due to peer pressure. Based on Shikoyeni's findings,[2] there are many negative effects associated with peer pressure, including pressure to use alcohol, cigarettes, or drugs, pressure to engage in risk-taking behaviors and distraction from school commitments. The influence of peer pressure was part of another study conducted in Namibia on how people and the environment influence drinking behavior, and the findings revealed that school and peer pressure influence some people to start drinking alcohol.[18]

The current study also found that forty-one (34.17%) of the respondents use alcohol because they spend most of their time at the cuca shops/bars. Shikoyeni's study identified that a person's decision to use alcohol is potentially predisposed by both the place of living and the availability of alcohol in the community.[2] In a similar literature, a study was done in Namibia and it was revealed that the wider environment within which drinking cultivates, including general drinking culture, prevalent norms and practices, and exposure to alcohol, affects how drinking patterns form and evolve.[18]

In the current study, a family history of alcohol use was significantly associated with the levels of alcohol use among respondents. This is similar to previous findings where family characteristics, including drinking alcohol, were associated with the use of alcohol among the participants.[19] Family environment plays a crucial role in human development as it presents the foundation of what is acceptable and unacceptable societal behaviors. Thus, a family environment where alcohol drinking is displayed as acceptable and permissible actively encourages alcohol use among family members, which may lead to harmful alcohol use.[19] In addition, these families usually lack cohesion and support, which are factors already linked to the harmful use of alcohol.[20] Other studies have also linked alcohol use to genetics through the identification of heritable family genes in a complex interplay with other societal factors.[21] Heritable family genes have been reported to account for between 40% and 70% of alcohol use disorders in different studies.[22,23] Therefore, a family history of alcohol use may potentially predispose an individual to future harmful use of alcohol.

Having children in the home was also associated with the levels of alcohol use in this study. A few women with children were classified as harmful users of alcohol, with the majority being normal users. Thus, children may act as an inhibitor of excessive use of alcohol as they place additional care and support responsibility on the individual. This finding is similar to a previous study that reported that couples with children were less likely to drink excessively compared to couples without children at home.[24,25] The authors cited the need to instill and demonstrate normal and acceptable behavior as well as to take appropriate care of the kids as reasons for this decrease in alcohol consumption. These explanations may also be applicable in the context of this study as the women are responsible for caring for children and may resist excessive alcohol consumption for this purpose. However, this may need to be explored further in the future.

The current study findings discovered that there was a significant association between peer pressure and levels of alcohol use among the respondents. This agrees with a previous study that reported a significant and direct relationship between peer pressure and excessive alcohol consumption.[26] Similarly, a study done in Kenya, also indicated that the number of friends who drink and attitudes towards alcohol consumption were associated with highly risky drinking.[27] Peer pressure is a subjective experience of feeling pressured or urged by others to engage in an activity against your own convictions.[28] Peer pressure has been linked to excessive drinking, especially in middle to young ages, due to exerted pressure to conform and fit into a group or societal identity.[29,30] This is because drinking is usually not a solo activity but is done mostly in social environments with friends and family. Therefore, the more drinking friends one has the more the chances of engaging in drinking episodes that may lead to the harmful use of alcohol.

Limitations

The sample size was 141 participants, but only 121 respondents were recruited in the study as data collection was prematurely terminated due to COVID-19 restrictions on movements as well as increased risk of infection during data collection. The study was conducted only in the Oshikoto region, therefore limiting the generalization of the results to the rest of the country.

Conclusions

The results from this study reveal that most of the women who use alcohol ranged in the age group of 27-35 years, and were unemployed, with the majority being Christians. More than half of the respondents are living in the village and have children. The study has also revealed that less than half of the respondents have acquired secondary and tertiary education.

The study found the determinants around the usage of alcohol to be ranging from being anxious, peer pressured, spending most time at cuca shops, and drinking to cope with the burdens of life.

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